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Gentlemen, Start your engines.

Dual Receivers

The '7800 has two identical, independent receiver circuits. Receive two different bands simultaneously on different antennas, with no adverse effects from one receiver to the other. Take your band hopping and contesting to the next level!

Dual Receive Controls: Separate key receiver controls are available for each receiver. Whether in a contest, or just hopping around the bands, easy access to receiver controls such as volume, RF gain, and AGC adjustments are at your fingertips.

DUAL RECEIVER CONTROLS

Multiple Meter Readouts: See the latest in meter technology with the '7800's virtual meter system. These digital meters are visually superior to and of a higher performance than analog. Don't believe it? Log on to www.icomamerica.com/7800 and see for yourself!

+40dBm IP3

Cutting edge digital meets the best of world class analog. Together, analog and digital now result in an amazing 110dB of receiver dynamic range and a +40dBm IP3 in the HF bands.

Independent AGC Settings: Multiple AGC settings for each receiver. On-the-fly adjustment for either preset AGC settings, or a completely variable AGC control.

DUAL RECEIVER CONTROLS

Headphone Jack: Stereo headphone connector. The stereo jack supplies either a combined audio or separate receiver audio for stereo headphones.

200W Output Power

Make your move. Newly designed, push-pull, power amplifiers using MOS-FET transistors work on 48V DC. They provide a powerful 200W output power at full duty cycle and low transmit IMD. Power your way to front of the pack.

CF Card Slot: The ultimate way to "take your rig with you". Just pull your CF card from your '7800, slide it into another '7800, and you now have your rig!

Retractable Controls: Pull out a knob, make your setting, then push the knob out of the way. As simple as this may seem, this feature keeps your radio "clean" looking and the controls out of the way.

IC-7800

THE ULTIMATE HF!

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All four of them!

Four 32 bit Floating Point DSP Units:

The '7800 runs on four 32-bit floating point DSP units with 24-bit AD/DA converters, one each for the main RX, second RX, TX, and spectrum scope. Each unit accelerates data processing to whiplash speeds.

Multiple Spectrum Displays: "It's like having a piece of test gear on your desk" is one of the comments overheard when we first operated the '7800. You can select a standard spectrum display either centered on your operating frequency or a fixed range to view the band! You choose how you want to SEE the band, and then tune to what signals you see. (Photo shows the fixed range spectrum display.)

Triple Band Stack Registers: Memorizes the last 3 used frequencies – quick recall for band hopping, provides the ultimate in multi-mode flexibility.

DUAL RECEIVER CONTROLS

Independent Digi-Sel Controls: Incorporated into the IC-7800 is a newly designed digital pre-selector, with separate controls for each receiver.

DUAL RECEIVER CONTROLS

Dual Digital Twin PassBand Tuning: Only Icom brings you Digital Twin PassBand tuning. Adjustments can be made for each receiver without affecting the other receiver.

DUAL RECEIVER CONTROLS

More Dual Receive Controls: In addition to the left side controls for volume, RF gain, and DSP controls, the '7800 also has independent controls for the Digital Twin PassBand tuning as well as the 70 dB Manual Notch filters.

DUAL RECEIVER CONTROLS

Digital Voice Recorder Controls: Simple record and play controls for the internal DVR. Great for quick recording and playback of a call, great for reducing the number of broken calls in your log.

Independent Auto Tune: Automatically zero beat your CW or AM carrier signals. The '7800 makes sure you're right on the proper frequency for these modes. Each receiver has a separate control.

DUAL RECEIVER CONTROLS

Dual VFO Tuning Knobs: Independent-tuning knobs for each receiver. Change your receiver's operating frequency just by turning the knob. There's no mistake about which receiver you are adjusting, as the size difference allows for "no-look" operation!

DUAL RECEIVER CONTROLS

Now that we've got you all revvved up... get a closer look at AES!

6628

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CHA-672/CHA-607	Wall cgr; RBP-607 batt D	1.99
PCA-145	Cig lighter cable; not for AT-600 .	14.99
RBP-120	12v 700mah NiMH	49.99
SD-911	Rapid charger	62.99
SLC-200/SLC200S	2.5w case; not AT-600 D	2.99
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SLC-600-S	2.5w carrying case; AT-600 ...D	2.99
PTC-001	Mobile power pack; PR-series .....Δ	19.99
RBP-22H	12v 1000mah NiMH batt; PR-series Δ	49.99
SLC-22L	Leather case; PR-series .....D	9.99
See Premier for speaker/mics for ADI HTs		
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SDU-5600	Spectrum disp unit/PC interface	1299.99
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SDU-5500	Spectrum disp unit/PC interfc D	999.99
SDU-5600	Spectrum disp unit/PC interface	1299.99
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EME-18 Earphone 8.99
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EDC-16B Cigarette lighter cable w/filter 21.99
EDC-36 Angle plug power cable w/filter 24.99
EDC-37 13.8v power cable 7.99
EDC-43 Cig lighter cable 10.99
EDC-88 Quick charger; nicad battery packs 59.99
EDC-97 Quick charger; MiMH battery packs 70.99
EDH-30 Dry cell battery case 15.99
EJ-43U Digital board for DJ-596T only ....Δ 99.99
EJ-47U Digital board; Mk II versions 179.99
EME-6 Earphone 10.99
EME-12 Headset w/earphone/mic/VOX 69.99
EME-13 Headset w/ear bud/mic/VOX 69.99
EME-15 Earphone/mic w/VOX 56.99
EME-17 Boom earphone mic 32.99
EME-20 Tie-pin mic & earphone 17.99
EMS-47 Spkr/mic w/volume control 24.99
ERW-4C PC cable 39.99
ESC-36 Soft case for EBP-48N 13.99
SW-596 Windows prog software; DJ-596T . 29.99
DJ-V5TH 5w 2m/440 FM HT/batt/cgr/TTP 209.99
EBP-46N 9.6v 600mah 5w nicad battery ... 64.99
EDC-16B Cigarette lighter cable w/filter 21.99
EDC-36 Angle plug power cable w/filter 24.99
EDC-37 13.8v power cable 7.99
EDC-43 Cig lighter cable 10.99
EDC-91 Quick charger 59.99
EDH-29 Dry cell case for 4-AA's 12.99
EME-6 Earphone 10.99
EME-12 Headset w/earphone/mic/VOX 69.99
EME-13 Headset w/ear bud/mic/VOX 69.99
EME-15 Earphone/mic w/VOX 56.99
EME-17 Boom earphone mic 32.99
EME-20 Tie-pin mic & earphone 17.99
EMS-8Z Remote speaker/mic 49.99
EMS-47 Spkr/mic w/volume control 24.99
ESC-35 Soft case for EBP-45N/46N 13.99
DJ-S11T 340mw 2m FM HT/battery holder .. 79.99
EBC-6 Mobile bracket 15.99
EDC-78 Wall charger; (not for alkalines) ... 7.99
EDH-18 12v to 5.5v DC/DC conv/cig plug .. 29.99
EME-6 Earphone 10.99

Alinco - continued

AES Price

EME-12 Headset w/earphone/mic/VOX 69.99
EME-13 Headset w/ear bud/mic/VOX 69.99
EME-15 Earphone/mic w/VOX 56.99
EME-17 Boom earphone mic 32.99
EME-20 Tie-pin mic & earphone 17.99
EMS-47 Spkr/mic w/volume control 24.99
ESC-27 Soft case 16.99
DJ-S40T 500mw 440 FM HT/battery holder . 89.99
EBC-6 Mobile bracket 15.99
EBP-52N 3.6v 500mah NiMH battery 37.99
EBP-53N 6v 500mah NiMH battery 45.99
EBP-54N 3.6v 1500mah NiMH battery 49.99
EDC-37 13.8v power cable 7.99
EDC-43 Cig lighter cable 10.99
EDC-105 Drop-in NIMH battery cgr, less ps 24.99
EDC-93 Wall ps for EDC-105 ..... 10.99
EDH-31 Dry cell battery case 12.99
EME-6 Earphone 10.99
EME-12 Headset w/earphone/mic/VOX 69.99
EME-13 Headset w/ear bud/mic/VOX 69.99
EME-15 Earphone/mic w/VOX 56.99
EME-17 Boom earphone mic 32.99
EME-20 Tie-pin mic & earphone 17.99
EMS-8Z Remote speaker/mic 49.99
EMS-47 Spkr/mic w/volume control 24.99
ESC-37 Soft case 13.99
EDH-27 Dry cell case w/charger; DJ-X2T ....Δ 29.99
EDH-28 DC/DC converter w/cig plug; DJ-X2T Δ 24.99
DJ-X3T .1MHz-1.3GHz AM/FM hand Rcvr/cell blkd 209.99
EBP-52S 3.6v 500mah NiMH battery 37.99
EDC-105 Drop-in NiMH battery cgr, less ps 24.99
EDC-93 Wall ps for EDC-105 ..... 10.99
EDH-31S Dry cell battery case 12.99
ERW-4C PC cable 39.99
ESC-37 Soft case 13.99
DJ-X10T .1MHz-2GHz AM/FM/SB hand rcv/cell blkd 309.99
EBP-33N 4.8v 650mah nicad battery .....Δ 19.99
EBP-34N 4.8v 1200mah nicad battery 79.99
EBP-37N 4.8v 700mah nicad battery 34.99
EDC-16B Cigarette lighter cable w/filter 21.99
EDC-36 Angle plug power cable w/filter 24.99
EDC-37 13.8v power cable 7.99
EDC-43 Cig lighter cable 10.99
EDC-88 Quick charger; nicad battery packs 59.99
EDH-16 Dry cell battery case 12.99
EME-6 Earphone 10.99
ESC-28 Soft case for EBP-33N 13.99
ESC-29 Soft case for EBP-37N 13.99
ESC-30 Soft case for EBP-34N 13.99
DJ-X2000T .1-2149MHz receiver/cell blocked 499.99
EBP-33N 4.8v 650mah nicad battery .....Δ 19.99
EBP-34N 4.8v 1200mah nicad battery 79.99
EBP-37N 4.8v 700mah nicad battery 34.99
EDC-16B Cigarette lighter cable w/filter 21.99
EDC-36 Angle plug power cable w/filter 24.99
EDC-37 13.8v power cable 7.99
EDC-43 Cig lighter cable 10.99
EDC-88 Quick charger; nicad battery packs 59.99
EDH-16 Dry cell battery case 12.99
EME-6 Earphone 10.99
ERW-4C PC cable 39.99
ESC-28 Soft case for EBP-33N 13.99
ESC-29 Soft case for EBP-37N 13.99
ESC-30 Soft case for EBP-34N 13.99
DR-M06TH 20w 6m FM Xcvr/TTP/encoder ... 259.99
MB-130 Extra mobile bracket 19.99
HK-130 Hardware kit for MB-130 ..... 4.99
PC-15B Extra DC cable 10.99
DR-135T Mk II Blk 50w 2m FM Xcvr/TTP mic 169.99
DR-235T Black 25w 220 FM Xcvr w/TTP mic .. 249.99
DR-435T Mk II Blk 35w 440 FM Xcvr/TTP mic 269.99

Alinco - continued

AES Price

EDC-37 13.8v power cable; ignition on/off 7.99
EDC-43 Cig lighter cable; ignition on/off ... 10.99
EJ-40U Dig board; DR-135T/TP/235T/435T Δ 99.99
EJ-41U 1200/9600 TNC unit 129.99
EJ-47U Digital board; Mk II versions 179.99
ERW-4C PC cable 39.99
MB-130 Extra mobile bracket 19.99
HK-130 Hardware kit for MB-130 ..... 4.99
PC-15B Extra DC cable 10.99
SW-620 Windows programming software .. 29.99
DR-135TP Black 50w 2m FM/TT/1200/9600 TNC .D 249.99
DR-135TP Mk II Blk 50w 2m FM/TT/1200/9600 TNC 269.99
EDC-37 13.8v power cable; ignition on/off 7.99
EDC-43 Cig lighter cable; ignition on/off ... 10.99
EJ-40U Dig board; DR-135T/TP/235T/435T Δ 99.99
EJ-47U Digital board; Mk II versions 179.99
ERW-4C PC cable 39.99
MB-130 Extra mobile bracket 19.99
HK-130 Hardware kit for MB-130 ..... 4.99
PC-15B Extra DC cable 10.99
SW-620 Windows programming software .. 29.99
EJ-19U Memory expansion unit; DR-430TQ Δ 4.99
DR-605TQ 50/35w 2m/440 FM/TT/EJ24U tone sq 339.99
EMS-14 Desk top microphone 114.99
EDS-8 Adapter for EMS-14 w/DR-605TQ 28.99
MB-130 Extra mobile bracket 19.99
HK-130 Hardware kit for MB-130 ..... 4.99
PC-15B Extra DC cable 10.99
DR-620T 50/35w 2m/440 FM Xcvr/TTP 339.99
EDS-9 Separation kit 45.99
EJ-47U Digital board for DR-620T 179.99
EJ-50U TNC unit for DR-620T 129.99
ERW-4C PC cable 39.99
MB-130 Extra mobile bracket 19.99
HK-130 Hardware kit for MB-130 ..... 4.99
PC-15B Extra DC cable 10.99
SW-620 Windows programming software .. 29.99
DX-70TH Comp HF Xcvr/100w 6m/mob bkt .. 699.99
DM-330MVT 30A switching ps/meter/32A surge 179.99
EBC-8 Front control head bracket 15.99
EBC-9 Extra mobile bracket 32.99
EDS-4 Rem mt acc kit w/5' cable, 2 covers 41.99
EDS-5 15' microphone extension cable 36.99
EDS-6 15' remote cable 68.99
EDX-2 160-10m 200w wire auto tuner 319.99
EMS-14 Desk top microphone 114.99
PC-25 Extra DC cable 35.99
DX-77T 160-10m HF Xcvr 669.99
DM-330MVT 30A switching ps/meter/32A surge 179.99
EDS-5 5' microphone extension cable 36.99
EDX-2 160-10m 200w wire auto tuner 319.99
EMS-14 Desk top microphone 114.99
PC-25 Extra DC cable 35.99

ALPHA DELTA (ALP)

ATT-3G50 200w 3GHz type N surge protector $ 59.99
ATT-3G50-HP 2kw 3GHz type N surge protector 59.99
ATT-3G50U 200w 500MHz UHF surge protector 49.99
ATT-3G50U-HP 2kw 500MHz UHF surge protector 49.99
ATT/3G50 Extra 200w arc-plug cartridge ... 14.99
ATT-HP/3G50HP Extra 2kw arc-plug cart ... 14.99
Delta-2 500 MHz 2-pos coax switch/protector 49.99
Delta-2/N 1.3 GHz 2-pos type N switch/protector 64.99
Delta-4 500 MHz 4-pos coax switch/protector 79.99
Delta-4/N 1.3 GHz 4-pos type N switch/protector . 89.99
D-4 Extra arc-plug; Delta-2/2N/4/4N 9.99
Delta-C Kit w/ctr ins/2 end ins/static protect 29.99
SEP Extra arc-plug cart; DX-Ultra/Delta-C 15.99
Delta-CIN Antenna end insulator .....each 1.99
DX-80 80m 134' complete dipole antenna 49.99
DX-40 40m 67' complete dipole antenna 39.99
DX-40/20 40/20m 40' low profile dipole antenna 89.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Alpha Delta - continued

	AES Price
DX-20 20m 34' complete dipole antenna	39.99
DX-A 160-80-40m twin sloper antenna	59.99
DX-B 160-80-40-30m 60' sloper ant	69.99
DX-CC 80-10m 5-band 82' no trap, no tuner dipole	119.99
DX-DD 80/40m 82' Delta Dipole antenna	89.99
DX-EE 40-10m 4-band 40' no trap, no tuner dipole	99.99
DX-LB 160-80-40m 100' shortened dipole	119.99
DX-LB Plus 160/80/40/20/15/10m 100' short dip	149.99
DX-SWL AM broadcast-13m 60' SWL sloper ant	79.99
DX-Ultra AM broadcast-30MHz 80' SWL dipole	109.99
SEP Extra arc-plug cart; DX-Ultra/Delta-C	15.99
Outpost Base tripod mtg sys for mobile ant	199.99
Pathfinder 1.8-30Mhz+6m dig auto ant tuner Δ	399.99
Pathminder 1.8-54 dig 6pos coax switch/protector Δ	149.99
SK-1 Straight Kent key	129.99
SP-1 Single paddle Kent key	139.99
TP-1 Twin paddle iambic Kent key	149.99
VK-1 Vail Correspondent Kent straight key	179.99
Basic Technology Amateur Radio video & book Δ	29.99

Also see OUTBACKER

AMECO PUBLICATIONS (AME)

4-01 Code Course Instruction Booklet	$ 2.99

CODE COURSES - CASSETTE TAPES

100-T Junior code tape, 0-7½ wpm	$ 5.95
107-PC-2 IBM Morse Code Course, version 2.0	29.95

CODE PRACTICE OSCILLATORS & CODE KEYS

K-1 Bakelite type key	$ 10.95
K-4 Brass type key	*16.95
OCM-2K Code oscillator & CW monitor kit	19.99
OCM-2W Wired oscillator & CW monitor	24.99

PREAMPLIFIERS

TPA HF receive preamp & indoor active ant	$ 76.99
P-9T Power supply for TPA	9.99
PT-3 2-54 MHz transceiver preamp	124.99
P-12T Power supply for PT-3	9.99

FILTERS

HP-75T 75 ohm high-pass filter	$ 12.99
HP-300T 300 ohm high-pass filter	12.99

AMERITRON (AMR)

AL-80B 1kw PEP out linear amp (3-500Z)	1249.99
AL-82 1.5kw PEP out linear amp (2 3-500Zs)	2199.99
AL-572 1.3kw PEP out linear amp (4 572Bs)	1349.99
AL-800 1250w PEP out linear (3CX800A7)	1699.99
AL-800H 1.5kw PEP out amp (2 3CX800A7)	2499.99
AL-811 600w PEP out linear amp (3 811As)	599.99
AL-811H 800w PEP out linear amp (4 811As)	749.99
AL-1200 1.5kw PEP out linear (3CX-1200A7)	2299.99
AL-1500 1.5kw out linear amplifier (8877)	2649.99
ALS-500M 500w PEP out solid state mob amp	699.99
ALS-600 600w PEP out solid state amp w/ps	1129.99
ARB-704 Amplifier Xcvr interface buffer	49.99
PNP-5M Plug & play cable; FT-847	15.99
PNP-7D Plug & play cable; TS-50S/870S/2000	15.99
PNP-8D Plug & play cable; FT-920/1000 series	15.99
PNP-8M Plug & play cable; FT-817/840	15.99
PNP-8MK Plug & play cable; TS-480	15.99
PNP-13D Plug & play cable; IC-706 series	15.99
PNP-35 Plug & play cable; FT-100 series	15.99
ARB-704I2 Amp Xcvr interface/cbl; IC-706 series	49.99
ATP-100 Amplifier tuning pulser	49.99
ATP-102 Deluxe amplifier tuning pulser	59.99
ATR-20 1.2kw PEP antenna tuner	419.99
ATR-30 3kw PEP antenna tuner	549.99
ADL-1500 1.5kw dummy load with oil	69.99
ADL-2500 2.5kw dummy load with fan	189.99
ICP-120 120v inrush protector	79.99
ICP-240 240v inrush protector	79.99
AWM-30 3kw PEP SWR/wattmeter/rem sens	139.99

Ameritron - continued

	AES Price
QSK-5 Stand alone T/R switch	329.99
QSK-5PC PC board kit; T/R switch	229.99
CF-5 Cooling fan for QSK-5	39.99
RCS-4 4-pos wireless remote coax switch	129.99
RCS-8V 160-2m 5-pos remote coax switch	139.99
RCS-8VN 160-2m 5-pos N rem coax switch	149.99
Note: RCS-8V/VN require 8-wire control cable.	
RCS-10 DC-100MHz 8-pos remote coax switch	149.99
Note: RCS-10 requires 4-wire control cable.	

ANTENEX (ANX)

AB-FT 118-896MHz ¼ wave NMO whip	$ 16.99
AB-SCANC VHF/UHF/800MHz NMO mob scan ant	29.99
BB-1442N 144-174 2.4db no gnd plane NMO mob	39.99
BB-1443 144-174MHz 3db 49" NMO mobile	39.99
BB-4303 430-450 3db 11 13/16" NMO mobile	34.99
CB-144/440C 2m/440 2/5db 36" NMO mobile	49.99
CWB-1443 Self-tuning 144-156 3db NMO mob	49.99
CWB-4405C Self-tuning 440-470 5db NMO mob	49.99
GB-8PSTI NMO mag mt w/coax & teflon PL259	29.99
GPSU-15GBNC GPS mag mt ant w/coax & BNC	99.99
LBMB-9034 Mirror mt ¾" hole L-bracket	10.99
MB-8PST NMO hole mt w/coax & teflon PL259	15.99
TRAB-1420 142-164 Phantom whipless NMO	59.99
TRAB-4303 430-450 3db Phantom whipless NMO	29.99
VTPM NMO mt;up to 1" thick plate (UHF barrel)	15.99
Y-1363 136-150 3el 7.1db gold welded beam	119.99
Y-4303 430-450 3el 7.1db gold welded beam	99.99

Antenna Specialists (ASP)

APR143 2m 23" on glass cell look-alike ant	$ 69.99
APR151.3 2m 3db 33" on glass antenna	69.99
KAV-353 On glass replacement mtg kit	12.99
KAV-382 On glass replacement mtg kit ...D	12.99

Antenna Supermarket (ANT)

Eavesdropper* 60-11m trap dipole SWL ant	$ 89.99
*Specify **SO-239** or **twin**-lead	

ANTENNA WORLD (ANW)

COM136-4500NP VHF/UHF port dipole/BNC	$ 19.99

ARROW Antenna (ARA)

146/437-10 3 el 2m/7 el 440 handheld beam	$ 73.00
146/437-10BP 3el 2m/7el 440 HH split bm beam	79.00
10w duplexer (installs in boom) w/BNC	59.00
10w **duplexer** (installs in boom) w/**SMA**	64.00

ARTSCI (ART)

Lost Users Manuals	$ 19.95
Repeater Mapbook 11th edition	14.99

ASTRON (ASR)

RS-4L 3A ps, 4A surge, w/cig lighter socket	$ 49.99
RS-7A 5A power supply, 7A surge	59.99
RS-10A 7.5A power supply, 10A surge	69.99
RS-12A 9A power supply, 12A surge	79.99
RS-12S 9A ps, 12A surge, w/speaker	89.99
RS-20A 16A power supply, 20A surge	99.99
RS-35A 25A power supply, 35A surge	149.99
RS-35A/220V 220v 25A ps, 35A surge	169.99
RS-50A 37A power supply, 50A surge	219.99
RS-70A 57A power supply, 70A surge	259.99
RS-20M 16A ps w/meters, 20A surge	119.99
RS-35M 25A ps w/meters, 35A surge	169.99
RS-50M 37A ps w/meters, 50A surge	239.99
RS-70M 57A ps w/meters, 70A surge	289.99
VS-20ML Variable 16A ps/meters, 20A surge	139.99
VS-35M Variable 25A ps/meters, 35A surge	189.99
VS-50M Variable 37A ps/meters, 50A surge	259.99
RM-35M 25A rack mt ps/meters, 35A surge	249.99
RM-50M 37A rack mt ps/meters, 50A surge	279.99
RM-60M 50A rack mt ps/meters, 55A surge	359.99

Astron - continued

	AES Price
SS-25 20A switching ps, 25A surge	109.99
SS-25M 20A switching ps/meters, 25A surge	129.99
SS-30 25A switching ps, 30A surge	119.99
SS-30M 25A switching ps/meters, 30A surge	139.99
12/115 200w 12vdc-115vac inverter Δ	34.99
N2412-12 10A 22-32vdc to 13.8vdc converter	49.99
N2412-24 20A 22-32vdc to 13.8vdc converter	79.99

BMI (BMI)

972AD 14" 12/24-hour wall clock	$ 32.99
973A 12" 24-hour wall clock	49.99

B & W (B&W)

AP-10A 51" portable 40/20/15/10/6/2m ant	$ 89.99
AS-160 160/80/40/20m 137' trap dipole ....D	149.99
AS-40 40/20/15/10m 40' trap dipole ant ...D	149.99
AC-1.8-30 Continuous 1.8-30 MHz vee ant	209.99
ACS-1.8-30 Continuous 1.8-30 stainless vee D	339.99
AXS-160 160/30m 96' trap dipole antenna D	59.99
AXS-80 80/40/15m 65' trap dipole ant .....D	89.99
AC-5-30 5-30 MHz 65' folded dipole .....D	169.99
ACS-5-30 5-30 Mhz stainless 65' folded dipole D	249.99
BWDS-1.8-30 1.8-30 stainless 90' folded dip D	299.99
BWD-20 14-30 MHz 20' folded dipole	179.99
BWD-45 7-30 MHz 45' folded dipole	189.99
BWD-65 4-30 MHz 65' folded dipole	199.99
BWDS-65 4-30 MHz stainless 65' folded dipole D	319.99
BWD-90 1.8-30 MHz 90' folded dipole	209.99
BWDS-90 1.8-30 stainless 90' folded dipole D	339.99
FDMK Mtg kit; folded dipole w/3 pole installation	39.99

BELDEN (BEL)

52 OHM COAXIAL CABLE

8216 RG-174 (sub-miniature)	per ft.	$ .29
8216	**100** ft. Roll	27.99
8216	**500** ft. Roll	99.99
8216	**1000** ft. Roll	184.99
8240 RG-58U (solid center)	per ft.	.30
8240	**100** ft. Roll	28.99
8240	**500** ft. Roll	109.99
8240	**1000** ft. Roll	199.99
8259 RG-58AU (stranded center)	per ft.	.32
8259	**100** ft. Roll	30.99
8259	**500** ft. Roll	109.99
8259	**1000** ft. Roll	199.99
8219 RG-58AU (stranded, foam)	per ft.	.32
8219	**100** ft. cut	29.99
8219	**500** ft. Roll	104.99
8219	**1000** ft. Roll	189.99
8262 RG-58CU (non-contaminating)	per ft.	.39
8262	**100** ft. cut	36.99
8262	**500** ft. Roll	139.99
8262	**1000** ft. Roll	249.99
9258 RG-8X (stranded, foam)	per ft.	.39
9258	**100** ft. cut	34.99
9258	**500** ft. Roll	129.99
9258	**1000** ft. Roll	239.99
8237 RG-8U	per ft.	.64
8237	**100** ft. Roll	59.99
8237	**500** ft. Roll	249.99
8214 RG-8U (foam)	per ft.	.59
8214	**100** ft. Roll	54.99
8214	**500** ft. Roll	259.99
8214	**1000** ft. Roll	489.99
9913 RG-8U (low loss)	**100** ft. Roll	59.99
9913	**250** ft. Roll	129.99
9913	**500** ft. Roll	239.99
9913F7 RG-8U (low loss, flexible)	per ft.	.87
9913F7	**100** ft. Roll	79.99

Belden - continued

		AES Price
9913F7	250 ft. Roll	159.99
9913F7	500 ft. Roll	289.99
9251	RG-8A (non-contaminating) ...per ft.,Δ	.64
9251	100 ft. cut,Δ	59.99
9251	500 ft. Roll,Δ	279.99
8267	RG-213 (non-contaminating) .....per ft.	.87
8267	100 ft. cut	79.99
8267	500 ft. Roll	349.99

75 OHM COAXIAL CABLE

8241	RG-59U (73 ohm, solid center) ...per ft.	$ .32
8241	100 ft. Roll	29.99
8241	500 ft. Roll	94.99
8241	1000 ft. Roll	179.99
8238	RG-11 (75 ohm, stranded center) per ft.	.99
8238	100 ft. cut	94.99
8238	500 ft. Roll	349.99
8213	RG-11 (75 ohm, solid, foam) .....per ft.	.89
8213	100 ft. cut	84.99
8213	500 ft. Roll	314.99

ROTOR CABLE

8484	4-wire; 4-20 gauge .....per ft.	$ .32
8484	100 ft. cut	29.99
8484	500 ft. Roll	114.99
8484	1000 ft. Roll	214.99
8448	8-wire; 2-18, 6-22 gauge .....per ft.	.34
8448	100 ft. cut	29.99
8448	500 ft. Roll	129.99
8448	1000 ft. Roll	249.99
9405	8-wire; 2-16, 6-18 gauge .....per ft.	.74
9405	100 ft. cut	69.99
9405	500 ft. Roll	319.99
9405	1000 ft. Roll	599.99

COPPERWELD ANTENNA WIRE

8000	No. 14 stranded antenna wire ....per ft.	$ .26
8000	100 ft. Roll	22.99
8000	1000 ft. Roll	189.99

No. 8 ALUMINUM GROUND WIRE

8018	Multiples of 50 ft. .....each	$ 15.99
8018	500 ft. Roll,Δ	69.99

Note: All above roll pricing is for rolls as shown only; all other lengths, even if more than roll length shown or a multiple of roll length shown, are sold at the per ft. price.

FOAM COAX w/PL-259s ON BOTH ENDS

9354	50' RG-8U foam	$ 54.99
9355	75' RG-8U foam	74.99
9356	100' RG-8U foam	84.99

BELMERIT (BLM)

DM-80	Credit card size multimeter w/case ...	$ 29.99
DX-405	10 func/39 range+20MHz freq multimeter	69.99

BENCHER (BEN)

BY-1	Iambic keyer paddle w/black base	$109.99
BY-2	Iambic keyer paddle w/chrome base	129.99
BY-3	Iambic keyer paddle, gold plated .....Δ	299.99
BY-4	Iambic paddle/blk base/gold components	169.99
170-82	Mercury paddle .....drop ship	449.99
ST-1	Single lever keyer paddle, black base ...	109.99
ST-2	Sgl lever kyr paddle, chrome base	129.99
RJ-1	Dlx hand key w/navy knob/black base ..	105.99
RJ-2	Dlx hand key w/navy knob/chrome base	129.99
HWK	Hardware kit; ZA-1A for 2" boom .....D	.69
YA-1	1kw low pass filter	85.99

Bounty Hunter (BOU)

Fast Tracker	Metal detector/2-tone target ID	$ 99.99
Tracker IV	Metal detector/3-mode	129.99
Quick Draw II	Metal detector/full motion	229.99

Bounty - continued

		AES Price
Sharp Shooter II	Metal detector/LCD readout	299.99
Land Star	Metal detector/3-tone audio discrim	349.99
Land Ranger	Metal detector/programmable .	449.99
Time Ranger	Metal detector/top-of-the-line .	549.99
Carry Bag	For Bounty Hunter metal detectors	29.99
10" Coil	10" magnum coil; adds depth	49.99

BUCKMASTER (BUC)

HamCall	CD-ROM ham listings	$ 50.99

BUSHNELL (BUS)

13-0430	4x30 LiteVision compact binoculars	$ 13.99
13-0721	7x21 compact Falcon binoculars ..D	19.99
13-1226	12x25 camo FRP compact binocs ...	29.99
13-1250	12x50 wide angle Powerview binocs	59.99
13-2514	8x21 black compact binoculars	21.99
13-3410	7x35 Falcon binoculars	29.99
26-3150	Night Vision 3.1x50 binocular	459.99
78-0040	90mm refractor telescope .....D	369.99
78-0200	4.5" reflector telescope .....D	269.99
78-2010	4.5" reflector telescope	199.99
78-2061	20-60x60 spotting scope w/tripod ..	79.99
78-0101	1.25" 9mm Kellner eye; 0040/6000/8000 Δ	19.99
78-0102	1.25" 25mm Kellner eyepiece .....Δ	19.99
78-0105	125" 2x Barlow lens; 0040/0200/6000/8000 Δ	29.99
10-1907	Speedster sports speed gun	199.99
10-1911	Velocity sports speed gun	99.99

BUTTERNUT (BUT)

Skyhawk 3X10	Triband 10 el, 24' beam w/bauln *	$999.99

***Skyhawk 3X10 is drop-shipped (shipped direct to you from the Butternut factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Wood Dale, Illinois via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item.**

HF-6VX	80/40/30/20/15/10m 26' vert ant	349.99
HF-9VX	80/40/30/20/17/15/12/10/6m 26' vert	399.99
A17-12	17 & 12m kit for HF-6VX	65.99
CPK	Counterpoise kit	139.99
MPS	Mounting post sleeve	12.99
RMK-II	Roof mounting kit w/radials	169.99
STR-II	Radial kit only	129.99
TBR-160S	160m resonator	129.99
HF-2V	80/40m 32' vertical	269.99
30-MRK	30m resonator for HF-2V	109.99
TBR-160S	160m resonator	129.99

CQ (CQX)

Building and Using Baluns and Ununs		$ 19.99
HR Anthology - Homebrewing Techniques		19.99
Lew McCoy on Antennas		15.99
Shortwave Propagation Handbook		19.99
W6SAI HF Antenna Handbook		19.99

CSS (CSS)

Pacterm 98	Win software; Kantronics TNCs .	$ 79.99
PK-Term 99	Win terminal prog; PK-12/96/232	79.99

CABLE X-PERTS (CAB)

CXP1318FX	CXP1318FX (low loss, flexible) per ft.	$ .59
CXP1318FX	500 ft. Roll	269.99
CXP1318FC-3	3' CXP1318FX/silver teflon PL259s	14.99
CXP1318FC-50	50' CXP1318FX/silver teflon PL259s	48.99
CXP1318FC-75	75' CXP1318FX/silver teflon PL259s	67.99
CXP1318FC-100	100' CXP1318FX/silver teflon PL259s	84.99
CXP1318FC-150	150' CXP1318FX/silver teflon PL259s	121.99
CXP1318FN-3	3' CXP1318FX/type N males	19.99
CXP1318FN-75	75' CXP1318FX/type N males	81.99

Cbl Xperts - continued

		AES Price
CXP1318FN-100	100' CXP1318FX/type N males	98.99
CXP1318FN-125	125' CXP1318FX/type N males	116.99
CXP008C-3	3' RG8 foam/silver teflon PL259s	12.99
CXP008C-6	6' RG8 foam/silver teflon PL259s	14.99
CXP008C-25	25' RG8 foam/silver teflon PL259s	25.99
CXP008C-50	50' RG8 foam/silver teflon PL259s	37.99
CXP008C-75	75' RG8 foam/silver teflon PL259s	49.99
CXP008C-100	100' RG8 foam/silver teflon PL259s	61.99
CXP008C-125	125' RG8 foam/silver teflon PL259s	77.99
CXP213C-6	6' RG213/silver teflon PL259s ...	14.99
CXP213C-15	15' RG213/silver teflon PL259s	22.99
CXP213C-25	25' RG213/silver teflon PL259s	25.99
CXP213C-50	50' RG213/silver teflon PL259s	37.99
CXP213C-75	75' RG213/silver teflon PL259s	49.99
CXP213C-100	100' RG213/silver teflon PL259s	61.99
CXP08XCC-3	3' RG8X clear/silver teflon PL259s	11.99
CXP08XC-25	25' RG8X/silver teflon PL259s .	18.99
CXP08XC-50	50' RG8X/silver teflon PL259s .	24.99
CXP08XC-75	75' RG8X/silver teflon PL259s .	28.99
CXP08XC-100	100' RG8X/silver teflon PL259s	32.99
CXP058ARBS-3	3' RG58/BNC male- SO-239	15.99
CXP142SBJ-3	3' RG142/SMA male - BNC female	19.99
CXP08XCB-3	3' RG8X/male BNCs	13.99
CXP08XCB-6	6' RG8X/male BNCs	14.99
CXP316RSSO-3	3' RG316/SMA male - SO-239	19.99
CXP522-6	6' keyer hook-up cable w/S-267 plug	19.99
235	1" tinned copper ground braid .....per ft	.99
235	100 ft. Roll	92.99
2332	½" tinned copper ground braid ...per ft.	.59
2332	100 ft. Roll	52.99
AZ-10	10ga red/black DC power cord ...per ft	.39
AZ-10	100 ft. Roll	29.99
AZ-12	12ga red/black DC power cord ...per ft	.29
AZ-12	100 ft. Roll	19.99

CASTLE RIDGE (CRO)

SOLID COPPERWELD ANTENNA WIRE

AN-122	100 feet No. 12	$ 29.99
AN-123	150 feet No. 12	39.99
AN-124	250 feet No. 12	59.99
AN-126	500 feet No. 12	99.99
AN-128	1000 feet No. 12	179.99
AN-142	100 feet No. 14	24.99
AN-143	150 feet No. 14	29.99
AN-144	250 feet No. 14	39.99
AN-146	500 feet No. 14	69.99
AN-148	1000 feet No. 14	119.99
AN-181	250 feet No. 18	17.99
AN-182	500 feet No. 18	29.99

CELESTRON (CEL)

4020	40x dissecting microscope	$ 79.99
4030	40-500x educational microscope	119.99
4050	40/100/400x biological microscope	199.99
10110	StarHopper 10 Dobsonian telescope ..	549.99
10112	StarHopper 12 Dobsonian telescope ..	999.99
10800	StarHopper 8 Dobsonian telescope	399.99
11015	Celestar 8 telescope .....D	999.99
94162	Solar filter for Nexstra 8/Celestar 8	79.99
11022	NexStar 8i telescope/tripod/hand control	1379.99
93501	Heavy duty tripod	299.99
93593	Standard tripod for NexStar 8i .....Δ	99.99
93963	GPS module - CN16	199.99
11033	NexStar 5i telescope .....D	899.99
93497	Standard tripod	149.99
93962	NexStar hand control	149.99
93963	GPS module - CN16	199.99
11052	Nexstar 8 GPS telescope	2169.99
11053	NexStar 11 GPS telescope	3224.99
21016	C-4R refractor telescope	399.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Celestron - continued

		AES Price
21019	C-6R refractor telescope	849.99
21052	FirstScope 60AZ refractor telescope	99.99
21086	FirstScope 80EQ refractor telescope	299.99
94135	Solar filter for Firstscope 80EQ/WA	34.99
22062	NexStar 60GT telescope	249.99
22082	NexStar 80GT telescope	349.99
302160	Soft case for Nexstar 60/80 .....Δ	59.99
94135	Solar filter for Nexstar 60GT/80GT	34.99
31034	Tabletop 76 reflector telescope	99.99
31044	FirstScope 114 4.5" reflector telescope	249.99
31056	C-6N reflector telescope	399.99
31132	NexStar 130GT reflector telescope	399.99
31142	NexStar 114GT reflector telescope	439.99
52200	60mm pro zoom spotting scope	199.99
52211	60mm wildlife zoom spotting scope/tripod D	169.99

LENSES (not for 10110, 10112, 31034)

93318	1.25" 9mm Omni lens	$ 49.99
93320	1.25" 15mm Omni lens	49.99
93326	1.25" 2x Omni Barlow lens	59.99
93351	1.25" 7.5mm Utima lens	129.99
93352	1.25" 12.5mm Utima lens	129.99
93353	1.25" 18mm Utima lens	129.99
93387	1.25" 5mm X-Cel lens	89.99
93389	1.25" 10mm X-Cel lens	89.99
93391	1.25" 18mm X-Cel lens	89.99
93507	1.25" 2x deluxe Barlow lens .....D	59.99
94303	Plossl lens/filter kit w/carrying case	199.99
51630	Star pointer finderscope	30.99
93590	Red Astro Lite flashlight	5.99
93700	CD-ROM "The Sky for Celestron"	29.99
93720-40	Planisphere & planet finder .....D	6.99
93722	Sky Map	19.99
94108	Diagonal, erect image 90°	49.99
94119-A	1.25" moon filter	15.99
94119-10	Eyepc filter set (21/80A/ND13/polarizing)	49.99
94126-A	Model A LPR filter; for 1¼" eyepieces	69.99

Sorry, no exports on Celestron products.

Channel Master (CHA)

9521A	Prog light duty rotor/IR rem cont/3-wire	$ 99.99

CLOCKS

BMI 972AD	14" 12/24-hour wall clock	$ 27.99
BMI 973A	12" 24-hour wall clock	49.99
MFJ 105C	24-hour quartz wall clock	19.99
MFJ 107B	24-hour digital clock	9.99
MFJ 108B	24/12-hour dual disp digital clock	19.99
MFJ 112B	Deluxe world map clock	24.99
MFJ 113	24/12-hr 1.8" LED clock/batt back-up	19.99
MFJ 115	DX'er 24-hr analog world wall clock	24.99
MFJ 116DC	12-hour 12vdc LED clock .....Δ	9.99
MFJ 118	Giant 24/12 hour LCD clock	24.99
MFJ 123	Eternity solar atomic clock	79.99
MFJ 125	Calendar 24-hour analog wall clock	29.99
ORE RM-116E	Exactset radio controlled clock D	29.99

COAX SEAL (UNV)

104	½" x 60" coax seal	$ 3.99

Coaxial Dynamics (COA)

81000-A	Wattmeter w/SO-239s	$260.99
83000-A	Peak reading wattmeter w/SO-239s	393.99
82004	50w 2-30MHz element	87.99
82005	100w 2-30MHz element	87.99
82006	250w 2-30MHz element	87.99
82007	500w 2-30MHz element	87.99
82008	1000w 2-30MHz element	87.99
82009	2500w 2-30MHz element	125.99
82010	5000w 2-30MHz element	125.99
82013	10w 25-60MHz element	71.99
82014	25w 25-60MHz element	71.99
82015	50w 25-60MHz element	71.99

Coaxial Dyn - continued

		AES Price
82016	100w 25-60MHz element	71.99
82029	10w 100-250MHz element	71.99
82031	50w 100-250MHz element	71.99
82033	250w 100-250MHz element	71.99
82046	10w 400-1000MHz element	71.99
82048	50w 400-1000MHz element	71.99
82049	100w 400-1000MHz element	71.99
88000	N female quick match connector each	9.99
88800	Carrying case for meter	65.99

COBRA (COB)

19DX III	AM Mobile CB	$ 49.99
19LTD II	AM Mobile CB	54.99
20XTR	AM Mobile CB w/neon magnetic ant	79.99
21LTD ST	Sound Tracker AM Mobile CB .....D	69.99
25LTD	(25LTD Classic) AM Mobile CB	89.99
25WXNW ST	Night Watch Sound Tracker AM Mob CB/WX	109.99
29LTD	(29LTD Classic) AM Mobile CB	99.99
29NW	Night Watch AM Mobile CB	119.99
29WXNW ST	Night Watch Sound Tracker AM Mob CB/WX	129.99
75WX ST	Sound Tracker AM Mobile CB w/WX	99.99
148NW ST	Night Watch Sound Tracker SB/AM Mob CB	179.99
HH-37 ST	Sound Tracker handheld CB	59.99
HH-Road Trip	Sound Tracker HH CB/WX/mag ant	79.99
HGA-1000	Magnet mt CB antenna	19.99
HGM-77	Noise canx/amplified mobile mic	24.99
PR-3000-2DX	22ch 2w GMRS/FRS HH ....pair	79.99

COMET (CMT)

SWR/POWER METER

CMX-1	1.8-60MHz 2kw remote SWR/pwr meter	$199.99
EKS-3	Optional 10' extension cable for CMX-1	28.99

MOBILE ANTENNAS

B-10	2m/440 2.15db 12" cell look-alike ant	$ 42.99
B-10NMO	2m/440 2.15db 12" cell look-alike NMO	42.99
C-757	2m/440 2.15/5.5db 38" foldover ant	59.99
C-757NMO	2m/440 2.15/5.5db 38" foldover NMO	59.99
C-767	2m/440 3.5/6db 40" foldover ant	64.99
C-767NMO	2m/440 3.5/6db 40" foldover NMO	64.99
CA-2X4SR	2m/440 3.8/6.2db 40" mob ant	69.99
HA-050	6m 33" ¼ wave mobile antenna	72.99
HP-32	2m/440 3/5.5db 34" 350/250w ant	89.99
M-24B	2m/440 1.7/4.1db mag mt ant w/BNC	39.99
M-24M	2m/440 1.7/4.1db mag ant w/PL259	39.99
SBB-1	2m/440 1.5/2.15db 16" flex mobile	42.99
SBB-1NMO	2m/440 1.5/2.15db 16" flex NMO	42.99
SBB-2	2m/440 2.15/3.8db 18" black mobile	42.99
SBB-2NMO	2m/440 2.15/3.8db 18" blk NMO	42.99
SBB-5	2m/440 3/5.5db 38" black mobile ant	58.99
SBB-5NMO	2m/440 3/5.5db 38" black NMO	58.99
SBB-7	2m/440 4.5/7.2db 4' 7" black mob ant	79.99
SBB-7NMO	2m/440 4.5/7.2db 4' 7" blk NMO	79.99
SB-14	6m/2m/440 43" chrome mobile ant	67.99
SB-15	6m/2m/440 2.15/4.5/7.2db 5' chr mob	84.99
SBB-25	2m 4.1db black mobile antenna	48.99
SBB-25NMO	2m 4.1db black NMO mob ant	48.99
SB-97	2m/440/1.2 3/6.8/9.6db 39" type N	84.99
SB-123	1.2GHz 7.2db 24" type N mobile ant	54.99
SBB-224	2m/220/440 2.15/3.2/5.5 blk mob	78.99
SBB-224NMO	2m/220/440 2.15/3.2/5.5 blk NMO	78.99
SF-245	2.4 GHz 7db 18" fg type N ant .....D	59.99
SF-245SPR	2.4GHz 7db 18" fg N ant/spring	69.99
UHV-4	10/6/2/440 54" mobile ant; FT8900R	109.99
UHV-6	40/15/10/6/2m/440 7' 2" mobile ant	159.99
L-3.5	80m loading coil for UHV-6	34.99
L-14	20m loading coil for UHV-6/CA-HV	29.99
L-18	17m loading coil for UHV-6/CA-HV	29.99
Z-750	2/440 2.1/5.5db 39" theft resistant .D	59.99

MOBILE MOUNTS

3D4M	Mobile mt, 13' coax w/UHF connectors	$ 26.99
3D4N	Mobile mt, 13' coax w/type N	26.99

Comet - continued

		AES Price
3D5M	Mobile mt, 16.5' coax w/UHF connectors	28.99
5D4N	Roof mount, 13' coax w/type N	34.99
AD-10N	NMO mount to female N adapter	17.99
AD-15M	NMO mount to SO-239 adapter	17.99
AD-25M	SO-239 to NMO mount adapter	14.99
AD-35	⅜-24 stud to UHF mobile mt adapter	19.99
CK-3M	Dlx 2-step 10' cable w/UHF connectors	35.99
CK-3M5	Dlx 2-step 16.5' cable w/UHF connects	42.99
CK-5N	Dlx 13' cable assembly w/type N	49.99
CM-5M	Hvy duty mag mt, coax, max 4' ant	24.99
CP-5-3/8-24	HD ⅜-24 mt (RS-730) w/16.5' coax	69.99
CP-5M	Hvy duty UHF mt (RS-730) w/16.75' coax	69.99
CP-5NMO	Hvy duty NMO mt (RS-730) w/16.5' coax	69.99
CQ-5M	Dlx black QD trunk lip mt/17' coax .D	66.99
CQ-5N	Dlx black QD tnk lip mt/17' coax/N ..D	44.99
CR-5M	Std coax assy, 16.5' coax, UHF conn	19.99
CT-5M	Trunk lip mount w/16.5' coax	39.99
GR-5M	Dlx tnk lip mt w/ coax; matches SB D	59.99
GRB-5M	Deluxe black trunk lip mt w/ coax	69.99
RS-9	Trunk lip mount, no coax	11.99
RS-520	Mini heavy duty trunk/hatch mount	28.99
RS-560C	Luggage rack mount, no coax	37.99
RS-720	Hatch/rear door/tnk multi-adj mt	29.99
RS-720NMO	Hch/rear door/tnk multi-adj NMO mt	29.99
RS-730	HD rear van/SUV door/tnk lip mt, no coax	32.99
WS-1M	Window clip mt w/UHF connectors	66.99

BASE STATION ANTENNAS

CA-712EF	440 9db 10' 5" base antenna	$109.99
CA-ABC22A	2m 6,5db 9' 5" base/rptr ant	75.99
CA-ABC23	2m 7.8 db 13' 4" base/rptr ant	109.99
CA-F72GF	440-470 6db 3' 6" tunable ant	109.99
CA-52HB4	6m 4 el 10.4db 10' 6" boom beam	129.99
CX-333	2m/220/440 6.5/7.8/9db 10.25' ant	184.99
CYA-1216E	1.2GHz 16el 16.6db 4' 5" bm N beam	129.99
DS-150S	6m/2m/440/900/1.2 discone/60' coax	99.99
GH-50	6m 2.15db 7' 10" fg base antenna	99.99
GP-3	2m/440 4.5/7.2db 5' 11" base/rptr ant	99.99
GP-6	2m/440 6.5/9db 10' 2" base/rptr ant	159.99
GP-9	2m/440 8.5/11.9db 17' 8" base/rptr	199.99
GP-9N	2m/440 8.5/11.9db 17' 8" N base/rptr	199.99
GP-15	6/2m/440 3/6.2/8.6db 7' 11" base	169.99
GP-21/CA-1221S	1.2 14.8db 8' N base/rptr	159.99
GP-24	2.4GHz 12.4db 5' 11" N base/rptr	169.99
GP-24S	2.4GHz 9.9db 3' 7" N base/rptr .....Δ	89.99
GP-98	2m/440/1.2 6.5/9/13.5db 9' 8" N ant	199.99
KP-20	900 MHz 9.2db 7' 4" type N base/rptr	112.99
PYA-913	900MHz 13el 15.8db 4' 8" type N beam	139.99

DUPLEXERS AND TRIPLEXERS

CF-142	1.3-150/200-480 600/400w UHF/leads	$ 69.99
CF-360A	1.3-30/50-470 600w UHF w/leads	69.99
CF-360B	1.3-30/50-470 600w UHF/common lead	69.99
CF-416A	2m/440 800/500w UHF w/leads	49.99
CF-416B	2m/440 800/500w UHF/N w/leads	49.99
CF-416C	2m/440 800/500w N/UHF/N leads	54.99
CF-416W	1.3-250/400-1400 400/200w N/leads	69.99
CF-530	1.3-90/125-470 600w UHF w/leads	74.99
CF-530C	Backwards duplexer for FT-8900R	69.99
CF-706A	1.3-56/75-470 350w UHF w/leads	74.99
CF-416OI	2m/440 800/500w UHF/UHF/N, no leads	48.99
CF-416OJ	2m/440 800/500w SO239, no leads	53.99
CF-416OK	2m/440 800/500w all UHF, no leads	48.99
CFX-324A	2m/220/440 600w UHF w/leads	88.99
CFX-324B	2m/220/440 600w UHF, no leads	85.99
CFX-514	HF/2m/440 800/800/500w UHF w/leads	79.99
CFX-514J	HF/2m/440 800/800/500w UHF, no leads	74.99
CFX-514N	HF/2m/440 800/800/500w UHF/N w/leads	79.99
CFX-4310C	1.3-150/440/1.2 triplexer, no leads	79.99
CFX-514O	HF/6m/2m/440 800/800/500w UHF, no leads	74.99

HT & HANDHELD SCANNER ANTENNAS

BNC-24	2m/440 17" 2.15/5.3db BNC whip	$ 24.99
CH-32	2m/440 1.75" BNC Miracle Baby ant	29.99

Comet - continued AES Price

CH-75	2m/440 0/3.2db 14.75" BNC ant	25.99
HB-05	18" BNC female - SMA male adapter/cbl	14.99
HM-05	18" BNC male - SO-239 adapter/cable	14.99
HS-05	18" SMA male - SO-239 adapter/cable	14.99
HT-224	2m/220/440 11" SMA antenna	47.99
SH-55	2m/440 1.5/3.2db 15" BNC ant	33.99
SH-95	2m/440/1.2 1.5/2.15/5.5db BNC ant	34.99
SMA-3	2m/440 1.2/1.7db 9.75" SMA ant	39.99
SMA-24	2m/440 17" 2.15/5.3db SMA whip	24.99
SMA-501	2m/440/900 1.5" SMA antenna	29.99
SMA-503	2m/440 8.75" SMA antenna	29.99
SMA-703	2m/440/1.2GHz 6.5" SMA ant	31.99

Comm Outfitters (COF)

EXP-1	Expedition Pack for Yaesu FT-817	$ 99.99

COMM-SPEC (COM)

ID-8	Automatic morse station identifier	$ 69.99
SS-64	64-tone mini prog CTCSS encoder	28.99
TE-32	32-tone CTCSS prog encoder box	49.99
TS-64DS	64-tone CTCSS prog encoder/decoder	57.99

CONNECTORS

AMPHENOL COAX CONNECTORS (AMP)

83-1SP-1050	Male coax plug (PL-259)	$ 1.99
83-1SP	Silver plated coax plug (PL-259)	2.99
Van Gorden (VAN) silver plated	teflon PL-259	2.99
83-185-RFX	Reducer for RG-58 (UG-175)	.99
83-168-RFX	Reducer; RG-59/RG-8X (UG-176)	.99
83-1AP	Right angle adaptor (UG-646)	8.99
83-1J	Double female adaptor (PL-258)	6.99
83-1R	Female chassis mt socket (SO-239)	3.99
83-1H	Hood; in-line use w/83-1R (UG-106) Δ	1.49
83-1T	T-connector adaptor (M-358)	11.99
83-877	Double male adaptor	12.99
83-878	Single hole ⅜" chassis socket	2.99
31-002	BNC male connector for RG-58	4.99
31-012	BNC male connector; RG-59/RG-8X	7.99
31-221	BNC female chassis socket	2.99
82-24	Type N female chassis mt socket	7.99
82-61	Type N male connector for RG-8 Δ	6.99
82-64	Type N right angle adaptor †	14.99
(VAN) N connector	Type N connector for 9913	4.99
82-202-1006	Type N male; 8214/9913/9913F	7.99
82-209	Type N female in-line for RG-8 Δ	9.99
34025	Type N male connector for RG-58	8.99

AMPHENOL COAX ADAPTORS (AMP)

2900	SO-239 to BNC male adaptor	$ 14.99
4400	SO-239 to type N male adaptor	14.99
31-28	BNC female to PL-259 adaptor	16.99
(HOU) SMA-872	SO-239 to SMA plug adaptor	5.99

AIM CONNECTORS, PLUGS & ADAPTORS (AIM)

(PHI) 61-608B	8-pin female mic plug	$ 4.99
25-7351	Chassis mt SO-239 double female	3.99
25-7365	BNC female to SO-239	3.99
25-7420	BNC male to SO-239	2.99
26-8010	Type N double female	3.99
26-8011	Type N chassis mount	2.99
26-8015	N male to SO-239	4.99
26-8016	BNC female to N male	4.99
26-8017	BNC male to N female	4.99
27-8120	BNC female to PL-259	2.99
27-8130	BNC double male	3.99
27-8140	BNC T; 2 female, 1 male	2.99
27-8142	BNC T, 3 male Δ	.49
27-8450	BNC chassis mt, 4 screw holes Δ	.99
27-8460	⅜" hole BNC chassis mt Δ	.49
27-8470	Dual BNC chassis mount	3.99
29-3855	BNC female to SMA male	3.99
29-4140	SO-239 to mini PL-259	2.99

VANCO MICROPHONE CONNECTORS (VCO)

CBC-2P	Panel mt 2-pin male Δ	$ .09

Connectors - continued AES Price

CBC-3	3-pin female mic plug Δ	.49
CBC-3P	Panel mt 3-pin male Δ	.09
CBC-4	4-pin female mic plug	4.99
CBC-5	5-pin female mic plug	3.99
CBC-5P	Panel mount 5-pin male Δ	.09
CBC-6	6-pin female mic plug	4.99
(AIM) 19-1289	8-pin female mic plug	4.99
CBC-8P	Panel mt 8-pin male	5.99

KENWOOD DIN PLUGS (KEN)

7-pin DIN	plug	$ 4.99
8-pin DIN	plug	6.99
13-pin DIN	plug	9.99

VANCO Mic Holders/Mini Plugs/Cig Plugs (VCO)

MH-1	Magnetic mic holder	$ 1.69
MH-2	Regular mic holder	1.49
P-35	3.5mm miniature phone plug	.69
(DAL) 15-0293	3.5mm mono phone plug Δ	.19
(HOU) AP-115	¼" metal stereo plug	1.99
(HOU) AP-135	3.5mm stereo mini phone plug	.69
P-12R	2-contact cigarette plug	1.99
P-12V	Cig lighter plug w/leads	1.99
P-212	2-outlet cigarette plug adapter	4.99
P-212B	Dual cigarette lighter socket adapter	8.99

Connect Systems (CSY)

CS-800	Full duplex patch & repeater controller	$369.99
CS-900	Simplex interconnect	369.99

CROSS DEVICE (CRS)

STUF	Coax connector waterproofing filler	$ 4.99

CUSHCRAFT (CUS)

At Cushcraft's request, amateur radio dealers are not authorized warranty depots for Cushcraft Antennas. All warranty issues should be directed to the Technical Support Department/Warranty at Cushcraft (603) 627-7877.

VHF/UHF FM BEAMS* (Vertical polarization)

A148-3S	2m, 3 el wideband beam, 7.8db	$ 69.99
A148-10S	2m, 10 el wideband beam, 13.2db	109.99
A449-6S	440 MHz, 6 el, 3' boom, 10 db	66.99
A449-11S	440 MHz, 11 el, 4.5' boom, 13 db	89.99

*Antennas can be mounted vertically or horizontally!

2M/440 FM BEAMS* (Vertical polarization)

A270-6S	2m/440, 3/3 el, 2.8' boom, 7.8 db	$ 89.99
A270-10S	2m/440, 5/5 el, 6.17' boom, 10 db	109.99

*Antennas can be mounted vertically or horizontally!

TRI-BAND 6M/2M/440 BEAMS

A6270-13S	6m/2m/440, 3/5/5el, 8.66'bm, 8/10/10db	$199.99
ASL-670	50-450MHz 14el 6.7' boom 6db LP	269.99

FM RINGOS - 1/2 Wave Verticals

AR-10	10m FM Ringo, 17.6', 3db, 1000w	$ 89.99
AR-6	6m FM Ringo, 10.1', 3db, 1000w	89.99
AR-2	2m FM Ringo, 3.9', 3db, 1000w	54.99
AR-450	440MHz FM Ringo, 1.4', 3db, 500w	40.99

RINGO RANGERS - FM Verticals

ARX-2	2m FM Ringo Ranger	$ 64.99
ARX-2B	2m FM Ringo Ranger II, 14', 7db, 1000w	74.99
ARX-220B	220 FM Ringo Ranger II, 9.3', 7db, 500w	74.99
ARX-450B	440FM Ringo Ranger II, 4.9', 7db, 500w	74.99

DUAL-BAND 2M/440 FM RINGOS

AR-270	2m/440MHz FM, 3.75', 3.7/5.5db, 250w	$104.99
AR-270B	2m/440 MHz FM, 7.7', 5.5/7.5db, 250w	109.99

TWIST, OSCAR BEAMS (Horiz/Vert Polarization)

A148-20T	2m 20el 10.8'bm 11.1db twist	$154.99
719B	432 19 el 13.5' boom 15.5db	169.99

BOOMER ANTENNAS

124WB	2m Boomer, 4 el, 4' boom, 10.2 db	$ 99.99
13B2	2m Boomer, 13 el, 15' boom, 15.8 db	169.99
17B2	2m Boomer, 17 el, 31' boom, 18 db	269.99
26B2	2 13B2s vertically stacked	449.99

Cushcraft - continued AES Price

224WB	220 Boomer, 4 el, 3' boom, 10.2db	79.99

BOOMER POWER DIVIDERS

PD-2	Power divider for 2 13B2s	$ 71.99
PD-4	Power divider for 4 13B2s	84.99

VHF/UHF BEAMS* (Horizontal polarization)

A50-3S	6m, 3 el, 6' boom, 8 db, stainless hdwre	$124.99
A50-5S	6m, 5 el, 12' boom, 10 db, stainless hdwre	189.99
A50-6S	6m, 6 el, 20' boom, 11db, stainless hdwre	299.99
A148-10S	2m, 10 el wideband beam	109.99
A430-11S	430 MHz, 11 el, 4' boom, 13 db	89.99

*Antennas can be mounted vertically or horizontally!

MOBILE ANTENNAS

CS-28M	10m magnet mt antenna	$ 59.99
CS-50M	6m magnet mt 3 db antenna	59.99
CS-147A	2m coil & whip only	39.99
CS-147M	2m magnet mt 3 db antenna	59.99
CS-220M	220 magnet mt 3 db antenna	59.99
CS-450M	440 magnet mt 5 db antenna	59.99

DUAL-BAND 2M/440 MOBILE ANTENNAS

CS-270A	2m/440 coil & whip only	$ 59.99
CS-270M	2m/440 3.7/6 db magnet mt ant	84.99

MOUNTS ONLY FOR MOBILE ANTENNAS

CS-MG	Magnetic mount	$ 29.99
CS-MGN	Magnetic mount w/N connector	34.99
CS-TL	Trunk lip mount	29.99

MULTIBAND HF VERTICAL ANTENNAS

MA-5V	20/17/15/12/10m 14.7' vertical ant	$219.99
MA-6V	20/17/15/12/10/6m 14.7' vertical ant	259.99
R-6000	20/17/15/12/10/6m 19' vertical	329.99
R-8	40/30/20/17/15/12/10/6m 28.5' vert	489.99
R-8GK	Guy kit for R-8	49.99

ROTATABLE HF DIPOLES

D-3	20/15/10m World Ranger dipole	$259.99
D-3W	30/17/12m rotatable dipole	259.99
D-4	40/20/15/10m World Ranger dipole	369.99
D-40	40m World Ranger dipole	319.99

BIG THUNDER HF TRI-BAND BEAM

X-7	20/15/10m, 7 el, 18' boom, 12.5/13db	$669.99
X-740	40m add-on kit for X-7	299.99

BIG THUNDER HF MONOBAND BEAM

XM-240	40m, 2 el, 23' boom, 7 db	$719.99
TEN-3	10m, 3 el, 8' boom, 8 db	199.99

MULTIBAND HF BEAM ANTENNAS

A-3S	20/15/10m, 3el, 14'bm, 8db, stainless hdwr	$449.99
A-743	40m or 10 MHz add-on kit; A-3/A-3S	179.99
A-4S	20/15/10m, 4el, 18'bm, 8.9db, stainless hdwre	549.99
A-744	40m or 10 MHz add-on kit; A-4/A-4S	179.99
A-3WS	17 & 12m, 3 el, 14' boom, 8 db	369.99
A-103	30m add-on kit for A-3WS	179.99
ASL-2010	13.5-32MHz 8el 18' bm 6.4db LP	749.99
MA-5B	20/17/15/12/10m 7.3' boom mini beam	349.99

LIGHTNING ARRESTORS

LAC-4	200w SO-239 gas tube arrestor	$ 49.99
LAC-4H	2kw SO-239 gas tube arrestor	54.99
LAC-4N	200w type N gas tube arrestor	59.99
LAC-4NH	2kw type N gas tube arrestor	64.99
LC-2	Extra 200w cartridge for LAC-4/4N	15.99
LC-2KW	Extra 2kw cartridge for LAC-4H/4NH	17.99
5VB	Vinyl connector boots pack of 5	15.99

DCI (DCI)

145-2H	2m 144-146MHz 200w bandpass filter	$ 99.99
146-4H	2m 144-148MHz 200w bandpass filter	99.99
223.5-3H	222-225MHz 200w bandpass filter	109.99

2m/220 models w/N connectors add $10 special order

435-10C	430-440MHz 200w N bandpass filt	119.99
445-10C	440-450MHz 200w N bandpass filt	119.99
146/444-DB	144-148/438-450 200w bp filter	169.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

AES Price

DC SALES (DCS)

Tenna Hitch ¾-24 trailer hitch antenna mt D $ 38.99

DAIWA (DAI)

CN-101 1.8-150 15/150/1.5kw SWR/pwr meter/light $ 99.99
CN-103M 140-525 20/200w SWR/power meter 99.99
CN-801H 1.8-200 20/200/2kw SWR/pwr meter 149.99
CN-801V 140-525 20/200w SWR/power meter . 154.99
CS-201 2-position 600 MHz coax switch 26.99

DAVIS (DAV)

6150 Wireless Vantage Pro weather station .. $539.99
7400 Perception II indoor WX unit 139.99
7425 Wizard III weather station 179.99
7440 Monitor II weather station 269.99
7852 Rain Collector II, 0.01" 69.99
7977 Electronic rain counter, 0.01" .....D 2.99
7859 External temp/humd Sensor II; 7440 119.99
7862 Weatherlink Win interface/software ... 149.99
7866 Weatherlink Mac interface/software ..D 99.99
7870 Modem adapter for 7862/7866 ....Δ .99
7867 Weatherlink Mac to Win conv kit ....D .99
7868 Weatherlink Win to Mac conv kit ....D .99
7873 Cig lighter power cord 10.99
7876-040 4-conductor 40' extension cable 18.99
7878-040 6-conductor 40' extension cable 22.99
7880 8-conductor 25' junction box cable Δ 4.99
7881 8-conductor 50' junction box cable .. 25.99
7882 8-conductor 100' junction box cable 45.99
7890 Mast mount for anemometer 14.99
0131 Weather forecasting quick reference card 9.99
0271 Turbo Meter handheld dig wind indicator Δ 79.99
0276 WindScribe electronic wind/temp indicator 99.99
0281 Wind Wizard handheld wind indicator .. 47.99

DIAMOND (DIA)

SWR/POWER METERS

SX-20C HF/6m/2m 30/300w meter ..... $ 89.99
SX-40C 144-470 (220 w/correction) 15/150w 79.99
SX-100 1.6-60 MHz 30/300/3kw PEP meter .. 134.99
SX-200 1.8-200 MHz 5/20/200w PEP meter .. 94.99
SX-400 140-525 MHz 5/20/200w PEP meter . 114.99
SX-600 Dual band 1.8-160 /140-525 200w PEP mtr . 169.99
SX-1000 1.8-160/430-1300MHz 200w PEP meter . 214.99

HT & HANDHELD SCANNER ANTENNAS

RH-3 2m/440 1.75" BNC mini HT duck ..... $ 24.99
RH-77CA 2m/440 15" BNC rubber gain ant .. 24.99
RH-205 2m ⅝ wave telescopic HT antenna ... 24.99
RH-519 2m/440 8.3" flexible BNC whip 27.99
RH-707 2m/440 8¼" tiltable BNC whip 33.99
RH-951S 2m/440/1.2GHz 15" BNC slim duck 44.99
SRH-77CA 2m/440 15" SMA rubber gain ant 29.99
SRH-320A 2m/220/440 flexible SMA whip 49.99
SRH-519 2m/440 8.3" flexible SMA whip 32.99
SRH-805 2m/440/1.2GHz 1.75" SMA ant 27.99
SRH-815 2m/440/1.2GHz 6" flex SMA whip .. 36.99
SRH-999 6m/2m/440/1.2GHz 20" SMA whip . 59.99

MONO-BAND MOBILE ANTENNAS

HF-6FX 6m 2.15db 44" mobile antenna ..... $ 69.99
HF-50CX 6m 3.5db 71" mobile antenna 99.99
M-285 2m 3.4db 52.4" mobile antenna 31.99
M-685 6m 2.15db 52.4" mobile antenna 31.99
MG-200 2.4GHz 7db 23.6" N mobile ant 99.99
NR-22L 2m 6.5db 96.8" mobile antenna 69.99
NR-124 1.2GHz 8.4db 25" N mobile antenna 64.99
SG-2000HD 2m 5.2db 62.6" 250w mob ant .. 89.99

DUAL-BAND MOBILE ANTENNAS

MR-77 2m/440 2.15/3.4db 20" magnetic ant $ 39.99
MR-77SMA 2m/440 2.15/3.4db 20" mag w/SMA 44.99
NR-72BNMO Black 2m/440 2.15db 14" NMO 41.99
NR-73BNMO Blk 2m/440 2.15/5.5db 34" NMO 57.99

Diamond - continued

AES Price

NR-770HA 2m/440 3/5.5db 40" mobile ant .. 56.99
NR-770HB Black 2m/440 3/5.5db 40" mobile 59.99
NR-770HNMO 2m/440 3/5.5db 40" NMO mobile 56.99
NR-770HBNMO Blk 2m/440 3/5.5db 40" NMO 59.99
NR-770RA 2m/440 3/5.5db 39" mobile ant .. 51.99
NR-7900A 2m/440 3.7/6.4db 57" hi pwr mob ant 89.99
SG-M510 2m/440 2.15/5.5db 37" mob ant ... 59.99
SG-7000A 2m/440 2.15/3.8db 19" mobile 69.99
SG-7500A 2m/440 3.5/6db 41" mobile ant ... 79.99
SG-7500NMO 2m/440 3.5/6db 41" NMO ant .. 79.99
SG-7900A 2m/440 5/7.6db 62" mobile ant ... 114.99
SG-7900ANMO 2m/440 5/7.6db 60" NMO ant 114.99
K-400CNMO Hacth/tnk mt/coax; SG7900ANMO 69.99

TRI-BAND MOBILE ANTENNAS

CR-320A 2m/220/440 2.15/3.8/5.5db 36" .... $ 89.99
CR-627B 6m/2m/440 2.15/4.5/7.2db 60" ant 99.99
CR-627BNMO 6m/2m/440 2.15/4.5/7.2db 60" 99.99
HV-7A 10/6/2m/440 54" UHF mount mobile ant 109.99
HVC-7 40m loading coil for HV-7A/MV-3A . 44.99
HVC-14 20m loading coil for HV-7A/MV-3A 37.99
HVC-18 17m loading coil for HV-7A/MV-3A 37.99
HVC-21 15m loading coil for HV-7A/MV-3A 37.99
NR-2000NA 2m/440/1.2 3.15/6.3/9.7db 39" N mob 89.99
SG-M911 6m/2m/440 2.15/3/5.8db 41" mob 69.99

QUAD-BAND MOBILE ANTENNA

CR-8900A 10m/6m/2m/440 0/0/2.15/5.5db 50" $ 99.99

MAGNET MOUNTS

DPK-4NM-N Hvy dty mag mt, cbl, N, 45" max $ 49.99
K-702M Hvy duty mag mt, 6⅞" dia, 50" max 49.99
SPM-35 Hvy duty mag mt, cable, 45" max 39.99
SPM-NMO Hvy dty NMO mag mt, cbl, 45" max 44.99

TRUNK LIP MOUNTING KITS

K-200KM Folding hch/tnk mt/coax; NR/SG ..D $ 39.99
K-400 Hatch/trunk mt; NR/SG antennas 39.99
K-400C Hatch/trunk mt w/coax; UHF mount . 69.99
K-400CNMO Hatch/trunk mt w/coax; NMO mt 69.99
K-400S Hatch/trunk mt w/coax; UHF mt/SMA 79.99
K-400SNMO Hatch/trunk mt w/coax; NMO/SMA 79.99
K-400-3/8C Trunk mount w/6.5' cable; ⅜-24 69.99
K-412C Light duty hatch/tnk mt w/coax; UHF mt 59.99
K-412CNMO Light duty hatch/tnk mt w/coax; NMO 59.99
K-412S Light duty hatch/tnk mt w/coax; UHF/SMA 69.99
K-412SNMO Lt duty hatch/tnk mt/coax; NMO/SMA 69.99
C-110 10' extension cable for K-412 mts .. 14.99
K-600M Tilt angle SO-239 trunk mt w/cable . 57.99
K-600S Tilt angle SO-239 tnk mt w/cable/SMA 57.99
K-601M SO-239 hideaway trunk mt, 6' coax . 69.99
K-601NMO NMO hideaway trunk mt, 6' coax . 69.99
C-110 10' extension cable for K-601 mts .. 14.99
K-604M Tilt angle trunk mt w/flexible cable D 57.99
K-9000LRM Motorized luggage rack mount .. 109.99
K-9000TM Motorized trunk/hatchback mt 109.99

MIRROR & LUGGAGE RACK MOUNTS & KITS

K-515S Lug rack SO-239 mt; new type SUV/SMA $ 69.99
K-515SNMO Lug rack NMO mt; new type SUV/SMA 69.99
K-540 Mirror/luggage rack mt; under 45" 35.99
K-540KM Mirror/luggage rack mt w/coax 59.99
K-550* Luggage mt; new mini vans (use GLP) 44.99
K-550KM* Luggage mt w/SO-239 base/coax 69.99
*K-550 series not recommended for Yae ATAS-100/120

MOUNTING GROUP HARDWARE

C-101 SO-239 mt, 6.5' RG-316 low-loss coax $ 32.99
C-101NMO NMO mt, 6.5' RG-316 low-loss coax 32.99
C-104SMA 4' RG-58 ext cbl; SMA male & SO-239 16.99
C-105SMA 5' RG-58 ext cable; C-101/SMA male 16.99
C-110 10' ext cable; C-101/K-601/K-400-3/8C 14.99
C-110BNC 10' extension cable to BNC male . 22.99
C-110SMA 10' RG-58 ext cable; C-101/SMA male 22.99
C-211 SO-239 mt, 6.5' coax, 10' coax entend 44.99
C-213 SO-239 mt, 13.5' RG-316 low-loss coax 41.99

Diamond - continued

AES Price

C-213NMO NMO mt, 13.5' RG-316 low-loss coax 41.99
GLP-5N UHF mtg grp hrdwr; mini coax, Yae N D 1.99
NMO/UHF NMO to UHF adapter 12.99
NMO/UHF-B Black NMO to UHF adapter 13.99

MULTIBAND HF BASE VERTICAL ANTENNA

CP-6A 75/40/20/15/10/6m 200w PEP 16' vert $299.99

MONO-BAND BASE STATION ANTENNAS

A-144S5 2m 5 el 37.5" boom 9db beam ..... $ 59.99
A-430S10 430 10 el 43" boom 13db beam 69.99
A-430S15 430 15 el 89" boom 14.8db beam . 79.99
A-502HB 6m 2 el 2.6' boom 6.3db beam 99.99
A-504HB 6m 4 el 10.7' boom 10.8db beam ... 139.99
CP-22E 2m 6.5db 9' base antenna 54.99
DP-GH62 6m 6db 21' base antenna 139.99
F-22A 2m 6.7db 10.5' base antenna 99.99
F-23A 2m 7.8db 15' base antenna 119.99
F-23C1 148-154MHz 7.8db 15' comm base D 149.99
F-718A 440 11.5db 15' type N base antenna 209.99
F-718L 420-430 11.5db ATV N base ant ... D 159.99
G-200 2.4GHz 11db 6' N base antenna 199.99
2400-Y12 2.4GHz 12db 8el 15"bm 25w N beam 119.99

DUAL-BAND BASE STATION ANTENNAS

U-200 440/1.2GHz 8.3/11.7db 6' N base ant $129.99
X-50A 2m/440 4.5/7.2db 5.6' base antenna . 99.99
X-50NA 2m/440 4.5/7.2db 5.6' base N ant ... 99.99
X-200A 2m/440 6/8db 8.3' base antenna 139.99
X-500HNA Hvy duty 2m/440 8.3/11.7db 17.8' N ant 239.99
X-510MA 2m/440 8.3/11.7db 17.2' base ant 184.99
X-510NA 2m/440 8.3/11.7db 17.2' type N ant 184.99
X-700HA 2m/440 9.3/13db 24' type base ant 399.99
X-700HNA 2m/440 9.3/13db 24' type N ant . 399.99

TRI-BAND BASE STATION ANTENNAS

D-130J 25-1300 MHz 200w discone ant ..... $ 99.99
V-2000A 52-54MHz/2m/440 2.1/6.2/8.4db 8.3' 162.99
X-3200A 2m/220/440 6/7.8/8db 10' base 209.99
X-6000A 2m/440/1.2 6.5/9/10db 10.5' N 189.99

DUPLEXERS & TRIPLEXERS

MX-62M HF-6m &2m/440, 12" cables dplxr . $ 74.99
MX-72D HF-2m/440 400/150/100w duplexer 43.99
MX-72H HF-2m/440 duplexer w/12" cables .. 46.99
MX-72N HF-2m/440 dplxr, 440 type N, 12" cables 49.99
MX-214D 2m/220 150/100w dplxr, no cables 69.99
MX-324 2m/220/440 triplexer 99.99
MX-324D 2m/220/440 triplexer, no cables 99.99
MX-610 HF-6m duplexer; IC-706/FT-100 ..... 69.99
MX-2000 HF-6m/2m/440 400/400/250w triplexer 84.99
MX-3000 HF-2m/440/1.2 400/200/100w triplexer 79.99
MX-3000N HF-2m/440/1.2 400/200/100w N triplexer 85.99

ACCESSORIES

CA-23RS DC-2500MHz 200w N lightning protect $ 39.99
CA-23RW 2500MHz 200w N waterproof protect 44.99
CA-35R/RS DC-500MHz 400w lightning protect 29.99
CX-210A 1.5kw DC-1000MHz coax switch 44.99
CX-210N 1.5kw DC-1500MHz N coax switch . 74.99
CX-310A HD 3-pos DC-800MHz coax switch . 83.99
DL-30A 15/100w peak 0-500MHz dummy load 27.99
DL-30N 15/100w peak 0-500MHz N dummy load 39.99
GZV-4000 Variable 40A switching ps/meter/spkr 179.99

DRAKE (DRA)

R-8B Shortwave receiver 1499.99
MS-8 1592 Speaker 59.99
1590 35-55, 108-174 MHz VHF converter .. 269.99
7852 R-8B technical manual 39.99
1591 Interface computer soft; original R-8 ..D .99

DURACELL (DUR)

9V 9v alkaline battery ..... $ 3.49
AA-4 4-pack AA alkaline batteries 3.49

AES Price

DYNAMITE (DYN)

1000	Dyna-Sport 1500mah 6-cell flat nicad	$ 16.99
1145	Dyna-Fun 2000mah 6-cell nicad	39.99
4010	Mega 1 AC/DC quick charger	29.99
4046	Vision Peak Plus AC/DC peak charger	69.99

ECG (ECG)

U-105	Light duty antenna rotor/3-wire	$ 69.99
TB-105	Thrust bearing	18.99

EASY-UP (UPS OK) (EAS)

EZ 29-24S	Stainless double strap chimney mt	$ 17.99
EZ 48-3ABX	3' boxed tripod w/pitch pad kit	24.99
EZ 48-5ABX	5' boxed tripod w/pitch pad kit	34.99
EZ-516	5' 16 ga steel mast .....pick-up only	7.99

EMERSON (EME)

EVO-6550	2nd 900MHz camera; EVO-6500 D	$ 19.99
PDC-803/PMD-8030	Dig compass/LCD backlite	29.99
RP-005	6-func flashing safety strobe/reflector	6.99

EXCALIBUR (EXC)

908	Talking electronic chess computer	$ 49.99
H-422	Large Forever Flashlight (clear case)	24.99
H-423	Small Forever Flashlight (clear case)	19.99

GE (GEX)

72887	Super Radio III AM/FM radio, AC/DC	$ 49.99

GAP VERTICALS (GAP)

DX-VIII	Challenger 75*/40/20/15/12/10/6/2m 31.5' *80m CW w/capacitor exchange from GAP	$299.99
	Challenger Counterpoise	30.99
	(SYN) **100'** 3/32" black double braided rope	6.99
DX-VI	Eagle 40/20/17/15/12/10m 21.5' rigid	309.99
DX-IV	Voyager 160/80/40/20m 45'; use 350' guy	419.99
	Voyager Counterpoise	55.99
	(SYN) **350'** 3/32" black double braided rope	39.99
Titan DX	75*/40/30/20/17/15/12/10m, 25' *80m CW w/capacitor exchange from GAP	339.99
100' Guy Kit	with clamp	14.99
200' Guy Kit	with clamp	22.99
Ground Mount	Quick tilt mt for vertical ant	79.99
Ladder Mount	Quick tilt mt; campers/RVs	79.99
Hear It	DSP noise eliminating speaker	159.99
In Line Module	Hear It in line module noise elim	199.99

GARMIN (GAR)

Geko-101	Small GPS receiver	$ 99.99
Geko-201	Small GPS receiver w/WAAS	139.99
GPS-12XL	GPS receiver	219.99
GPS-72	Handheld track-plotter GPS	159.99
GPS-III Plus	Handheld/dash mt mapping GPS D	299.99
GA-26C	Low prof rem ant/cbl; GPSIII/III Plus	89.99
GA-27C	Low prof rem ant/cbl; GPS-12CX/XL	89.99
010-10048-00	Mounting bracket; 12CX/XL	29.99
010-10082-00	Power/data cable	27.99
010-10085-00	Cig lighter adapter cable	23.99
010-10111-00	Mtg bkt; GPS-III Plus .....Δ	31.99
010-10117-01	Carying case .....D	6.99
010-10117-02	Carying case	12.99
010-10121-00	MCX-BNC adapt cbl; 12CX/XL	25.99
010-10141-00	PC interface cable	38.99
010-10165-00	PC cable w/cig adapter	45.99
010-10215-00	MapSource US CD;GPS-III Plus D	99.99
010-10199-03	Carrying case; Street Pilot ..D	4.99
010-10232-00	Carrying case; Street Pilot ..D	6.99
StreetPilot III Deluxe	GPS	699.99
GA-26C	Low prof remote ant w/cable/BNC	89.99
010-10141-00	PC interface cable	38.99
010-10165-00	PC cable w/cig adapter	45.99
010-10227-00	Blank 8MB memory cartridge	58.99

Garmin - continued AES Price

StreetPilot 2610	Deluxe GPS	999.99
GA-27C	Low profile remote ant/cable/MCX	89.99
eMAP Deluxe	GPS/maping/8MB card/PC cable D	199.99
GA-27C	Low profile remote ant/cable/MCX	89.99
010-10121-00	MCX to BNC adapter cable	25.99
010-10203-00	Cig lighter cbl; eMAP & eTREX	39.99
010-10205-00	Data cable; eMAP & eTREX	22.99
010-10206-00	PC interface cbl; eMAP & eTREX	38.99
010-10215-00	MapSource US road&rec CD D	99.99
010-10227-00	Blank 8MB mem cartridge	58.99
010-10468-00	MapSource MetroGuide CD	99.99
eTREX	12 ch mini GPS receiver	99.99
eTREX Summit	12ch mini GPS/compass/barometric	199.99
010-10203-00	Cig lighter cbl; eMAP & eTREX	39.99
010-10205-00	Data cable; eMAP & eTREX	22.99
010-10206-00	PC interface cbl; eMAP & eTREX	38.99
NavTalk	Analog cellular phone/GPS combo .D	169.99
010-10215-00	MapSource US road&rec CD D	99.99
GPS-V Deluxe	Turn-by-turn navigation GPS/soft	399.99
GA-26C	Low prof remote ant w/cable/BNC	89.99
010-10082-00	Power/data cable	27.99
010-10117-01	Carying case .....D	6.99
010-10117-02	Carying case	12.99
010-10165-00	PC cable w/cig adapter	45.99
010-10468-00	MapSource MetroGuide CD	99.99
Forerunner 201	GPS/personal training device	149.99
iQue-3600	Handheld PDA w/integrated GPS	549.99
Rino-120	GPS/FRS/GMRS w/8mb mem/basemap	249.99
010-10117-02	Carying case; Rino-120	12.99

GEAR KEEPER (GEA)

RT2-4012	Hvy duty Mic Keeper w/snap clip	$ 19.99
RT3-4653	Locking HT Gear Keeper/swivel belt clip	29.99

GEOCHRON (GEO)

World Watch	Day/night Windows software	$ 49.99
Std Blk/Gold*	Std black/gold trim world clock/map	999.99
Std Oak/Gold*	Std oak/gold trim world clock/map	999.99

***These items are drop-shipped (shipped direct to you from the Geochron factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Redwood City, California via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item. Other Geochron models available on special order.**

GLEN MARTIN (GME)

TOWERS

M-1330A	30' alum tower package w/Hazer .T	1614.99
M-1340A	40' alum tower package w/Hazer .T	1831.99
M-1350A	50' alum tower package w/Hazer .T	2069.99
M-1840A	40' alum tower package w/Hazer .T	2149.99
M-1850A	50' alum tower package w/Hazer T	2409.99
M-1860A	60' alum twr pack w/Voyager Hazer T	3355.99
M-1870A	70' alum twr pack w/Voyager Hazer T	3659.99
ML-1800	Messenger line kit for GME towers	72.99
KB-1000	57" side arm; M-13 series	81.99
KB-1300	57" side arm; M-18 series	84.99
M-22	10' galv steel M-22 tower section	431.99
CHB-22	Footing assembly for M-22	260.99
B-22	Leveling base for M-22	379.99

ROOF-TOP TOWERS

RT-424	4.5' roof-top tower, anodized aluminum	$163.99
RT-832	8' roof-top tower, anodized aluminum	242.99
RT-936	9' roof-top tower, anodized aluminum	396.99
RT-1832	17.5' roof-top tower, anodized aluminum	531.99
RT-2632	26' roof-top tower, anodized aluminum	879.99
MC-10	Mast clamp; aluminum, 2 required	24.99
TB-25	Premium thrust bearing	89.99
LB-3755	Lag bolts, set of 8 3/8 x 5"	9.99

Glen Martin - continued AES Price

EL-3744	Concrete L-bolts, set of 8	14.99
RA-6024	24" side arm for roof towers	41.99
RA-6048	48" side arm for roof towers	54.99

HAZERS FOR ROHN TOWERS

H-2	Heavy duty aluminum Hazer system	$360.99
H-3	Standard duty aluminum Hazer system	273.99
H-4	Heavy duty galv steel Hazer system	348.99
BW-8001	Brake winch for H-2/3/4	80.99
HR-2040	Roller bearing set for Hazers	64.99
HR-6010	T²X plates for H-2/3/4/5	26.99
HS-1301	Side arm for Hazers	64.99
ML-2500	Messenger line kit for Rohn towers	76.99
VH8-60	Voyager Hazer for 60' Rohn 45G	1409.99
VH8-70	Voyager Hazer for 70' Rohn 45G	1544.99
VH9-50	Voyager Hazer for 50' Rohn 55G	1329.99
VH9-60	Voyager Hazer for 60' Rohn 55G	1449.99
VH9-70	Voyager Hazer for 70' Rohn 55G	1564.99

LIGHTNING PROTECTION

LR-8400	Premium lightning rod kit	$ 99.99
GR-4400	Ground rod wire clamp	6.99
GR-5080	8' x 5/8" ground rod	20.99
TL-0470	Terminal lug	2.99
LR-8418	Lightning rod point, 18" long	38.99
LR-8452	Clamp for holding rod to 2" mast	25.99
LR-8451	Clamp for holding rod to 1 5/16" mast	24.99
CW-2540	25' #4 bare copper ground wire	20.99
CW-5040	50' #4 bare copper ground wire	41.99
CW-7540	75' #4 bare copper ground wire	59.99
CW-1040	100' #4 bare copper ground wire	66.99
CW-1240	125' #4 bare copper ground wire	98.99
CW-1540	150' #4 bare copper ground wire	118.99

GUYING

HP-3000	Kevlar guy cable, 3000# break strength per ft	$ .99
HP-4500	Kevlar guy cable, 4500# break strength per ft	1.49
HP-7500	Kevlar guy cable, 7500# break strength per ft	1.99
WR-125	1/8" galv 7 x 7 guy cable .....per ft.	.49
WR-380	3/8" galv 7 x 7 guy cable .....per ft.	.69
WRS-156	3/32" stainless 7 x 19 guy cable per ft.	.79
WRS-187	3/16" stainless 7 x 19 guy cable per ft.	.89
WRS-250	1/4" stainless 7 x 19 guy cable per ft.	.99
WR-1862	3/16" U-bolt clip (also for Kevlar 3000/4500)	1.69
WR-2565	1/4" U-bolt clip (also for Kevlar 7500)	1.69
WR-3164	5/16" U-bolt clip	1.99
PT-2500	1/4" heavy duty thimble (for all Kevlar)	2.69
PT-3100	5/16" heavy duty thimble	2.99
PT-3700	3/8" heavy duty thimble	3.39
H-165	1/4" end cap (for Kevlar 3000/4500)	.79
H-164	5/16" end cap (for Kevlar 7500)	.89
H-142	3/8" end cap	.99
RG-4010	1/2" link connecting earthscrew to turnbuckle	8.99
ES-40	4" dia x 30" earth screw	22.99
EG-40	4" dia x 30" galvanized earth screw	33.99
ES-60	6" dia x 48" earth screw	39.99
EG-60	6" dia x 48" galvanized earth screw	55.99
ES-80	8" dia x 66" earth screw	68.99
TB-3806	3/8" x 6" galvanized turnbuckle	18.99
TB-5009	1/2" x 9" galvanized turnbuckle	24.99
TB-6212	5/8" x 12" galvanized turnbuckle	41.99

MASTS

M-1049	9' x 2" OD heavy duty galv steel mast	$ 79.99
M-1040	10' x 2" OD heavy duty galv steel mast T	84.99
MA-1040	10' x 1.92" OD medium duty alum mast T	94.99
MA-1049	9' x 1.92" OD medium duty alum mast	89.99
MA-2069	9' x 2.375" OD heavy duty alum mast	99.99
MA-1050	5' x 1.92" OD medium duty alum mast	61.99
MA-5050	5' x 1.31" OD light duty alum mast	41.99
MP-1409	9' x 2" OD .250 wall xtra HD fg mast	129.99
MP-1809	9' x 2" OD .125 wall med dty fg mast	76.99

SIDE ARMS

HS-2500	36" universal side arm mount	$ 65.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Glen Martin - continued

AES Price

HS-6000 52" universal side arm mount 78.99

WINCHES

B-800 800 lb capacity w/4.5:1 gear ratio ..... $ 72.99
W-1100 1100 lb capacity w/3.9:1 gear ratio 42.99
B-2000 2000 lb capacity w/17:1 gear ratio .. 126.99
WA-1200 4000 lb electric winch, 115 vac 489.99
WD-1200 4000 lb electric winch, 12 vdc 448.99
W-6371 Pendant for 12 vdc 178.99
W-6372 Pendant for 115 vac 102.99

TOWER CLIMBING EQUIPMENT

FP-5600 2 d-ring full body climbing harness (S-M) $ 89.99
FP-5601 2 d-ring full body climbing harness (L-XL) 89.99
FP-5602 4 d-ring full body climbing harness (S-M) 106.99
FP-5603 4 d-ring full body climbing harness (L-XL) 106.99
FP-6600 6 d-ring full body climbing harness (XS) 260.99
FP-6601 6 d-ring full body climbing harness (S) 236.99
FP-6602 6 d-ring full body climbing harness (M) 236.99
FP-6603 6 d-ring full body climbing harness (L) 236.99
FP-6604 6 d-ring full body climbing harness (XL) 236.99
FP-7600 AeroClimber 6 d-ring saddle harness (XS) 231.99
FP-7601 AeroClimber 6 d-ring saddle harness (S) 209.99
FP-7602 AeroClimber 6 d-ring saddle harness (M) 209.99
FP-7603 AeroClimber 6 d-ring saddle harness (L) 209.99
FP-7604 AeroClimber 6 d-ring saddle harness (XL) 209.99

FP-2606 1"x6' web lanyard/dbl locking snaphooks 32.99
FP-2903 1"x3' web lanyard, ¾" throat, snaphooks 38.99
FP-2904 1"x4' web lanyard, ¾" throat, snaphooks 39.99
FP-2905 1"x5' web lanyard, ¾" throat, snaphooks 39.99
FP-2906 1"x6' web lanyard, ¾" throat, snaphooks 40.99
FP-2913 1"x3' web lanyard, ¾"&1⅛" throat openings 63.99
FP-2914 1"x4' web lanyard, ¾"&1⅛" throat openings 64.99
FP-2915 1"x5' web lanyard, ¾"&1⅛" throat openings 64.99
FP-2916 1"x6' web lanyard, ¾"&1⅛" throat openings 65.99
FP-2923 1"x3' web lanyard, ¾"&2½" throat openings 69.99
FP-2924 1"x4' web lanyard, ¾"&2½" throat openings 70.99
FP-2925 1"x5' web lanyard, ¾"&2½" throat openings 70.99
FP-2926 1"x6' web lanyard, ¾"&2½" throat openings 71.99

All GLEN MARTIN orders are plus freight at Glen Martin's rates direct to you from the factory. There is also a $75 residential address delivery charge on M-13 & M-18 series towers. We prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your order. Please allow sufficient delivery time. Most truck lines will not unload towers, so please be sure to have enough manpower and/or equipment on hand.

GROTHE (GRO)

VS-2 Emergency vehicle siren ..... $ 89.99
VS-2LS/A Window mt siren/amber halogen ... 299.99
VS-2LS/B Window mt siren/blue halogen 299.99
VS-2LS/R Window mt siren/red halogen 299.99
VS-3 Volunteer vehicle PA/horn w/spkr 129.99
VS-4 P/A emergency vehicle siren w/spkr 139.99

GRUNDIG (GRU)

e-Traveller VII Mini AM/FM/SW Rcvr .....D $ 79.99
e-Zone FM receiver .....Δ 14.99
Classic 960 AM/FM/SW table radio 149.99
FR-200 AM/FM/SW/flashlight/crank 39.99
G-2000A Porsche design AM/FM/SW receiver 79.99
MiniWorld 100PE Mini AM/FM/SW receiver ... 29.99
S-350 AM/FM/SW receiver 99.99
Satellit 800 AM/FM/SW/LW/aircraft receiver . 499.99
Yacht Boy 300PE Port AM/FM/SW/LW Rcvr .D 79.99
Yacht Boy 400PE Port AM/FM/SW/LW Rcvr/ps 149.99
Yacht Boy 550 AM/FM/SW receiver 99.99

HAL (HAL)

DSP-4100/2K HF DSP modem ....special order 1495.99
RTTY-1 RTTY tuning indicator 99.99

AES Price

HARGER (HRG)

GBIS18114AE ⅛" copper entrance ground bar kit $ 27.99
GBIS18148AE ⅛" copper station ground bar kit 64.99
GEL3AE Package of 5 HD grounding lugs 15.99
GP1868.78AE ⅛" copper single pt gnd panel kit 54.99
GBX976AE NEMA-4x weatherproof enclosure 89.99

HEIL (HEI)

BM-5-4 Boom mic/single headset (HC-4) ..... $ 69.99
BM-5-5 Boom mic/single headset (HC-5) 69.99
BM-5-IC Boom mic/single headset/adapter; Icom 86.99
BM-10-4 Boom mic/headset (HC-4) 89.99
BM-10-5 Boom mic/headset (HC-5) 89.99
BM-10-IC Boom mic/headset/adapter; Icom 106.99
PRO-SET-4 Deluxe boom mic/headset (HC-4) 130.99
PRO-SET-5 Deluxe boom mic/headset (HC-5) 130.99
PRO-SET-IC Dlx boom mic/headset/adapter; Icom 147.99
PRO-SET-PLUS Dlx boom mic/headset (HC4&5) 189.99
PRO-SET-PLUS-IC Dlx bm mic/hdset (HC4&5); Ico 206.99
PSQP-4 Pro-Set Quiet Phone 4 boom mic/headph 199.99
PSQP-5 Pro-Set Quiet Phone 5 boom mic/headph 199.99
PSQP-IC Pro-Set Quiet Phone;Icom bm mic/headph 216.99
AD-1-I Pro-Set 8-pin adapter cord for Icom 17.99
AD-1-K Pro-Set 8-pin adapt cord; Kenwood 17.99
AD-1-T Pro-Set 4-pin adapt cord; Ten-Tec . 17.99
AD-1-Y Pro-Set 8-pin adapter cord; Yaesu 17.99
AD-1-I-M Pro-Set modular adapt cord; Ico 17.99
AD-1-K-M Pro-Set modular adapt cord; Ken 17.99
AD-1-Y-M Pro-Set modular adapt cord; Yae 17.99
Traveler-8PIC Bm mic/single headset; 8-pin Icom . 89.99
Traveler-706 Boom mic/single headset; IC-706 89.99
Traveler-K Boom mic/single headset; Ken 8-pin 89.99
Traveler-KM Bm mic/sgl headset; Ken modular 89.99
Traveler-YM Bm mic/sgl headset; Yae modular 89.99

FS-2 Dual switch foot switch 38.99
HS-1 Hand switch 25.99

AD-100 Mic/boomset adapt; FT-100/AD-1Y/CC-1Y 25.99
ADM-Y817 Mic/boomset adapt; FT817/AD1Y/CC1Y 25.99

GM-4 Goldline dual element studio mic w/HC-4 140.99
GM-5 Goldline dual element studio mic w/HC-5 140.99
GM-V Goldline vintage studio mic/matching xfmr 155.99
HCL-4 Classic 1930's desk mic/studio el & HC-4 229.99
HCL-5 Classic 1930's desk mic/studio el & HC-5 229.99
HM-10-4 Microphone with HC-4 element 65.99
HM-10-5 Microphone with HC-5 element 65.99
HM-10-Dual Mic w/HC-4 & HC-5 elements ... 115.99
ICM Pre-PRO Icom electret mic w/cable 89.99
CC-1-C 3/16" plug cable for Collins/Drake ... 33.99
CC-1-D 4-pin cable for Drake 30.99
CC-1-I 8-pin cable for Icom 30.99
CC-1-I-M Modular cable for Icom 30.99
CC-1-K 8-pin cable for Kenwood 30.99
CC-1-K-M Modular cable for Kenwood 30.99
CC-1-T Cable for Ten-Tec 30.99
CC-1-Y 8-pin cable for Yaesu 30.99
CC-1-Y-M Modular cable for Yaesu 30.99
HSTA-706 Adapt; HM-I - Icom 706/modular plug 20.99
PL-2 Proline boom .....D 59.99
PL-2T Topless proline boom 75.99
FM-1 Flange mount for PL-2T 15.99
RS-1 Riser 12" flange mount for PL-2T .. 25.99
SB-1 Small adjustable mic boom w/C clamp 33.99
TB-1 Table base microphone stand 25.99
HMM-IC Condensor hand mic/8-pin plug; Icom 58.99
HMM-K Dual el hand mic/HC-4/8-pin plug; Ken 78.99
HMM-Y Dual el hand mic/HC-4/8-pin plug; Yae 78.99
HQP Quiet Phone Noise cancelling headphones 99.99

Boom Clip for BM-series 5.99
Ear Pads for BM-series .....pair 5.99
Ear Pads for **PRO**-series .....pair 6.99

Heil - continued

AES Price

Ham Radio Handbook 12.95
CB-1 Classic base 65.99
HD-AT 6db headph attenuator, ⅛"m-¼"f adapt 5.99
SM-1 Shock mount for any microphone boom 50.99
TM-1 Tri-mount microphone adapter 14.99
XT-1 Audio matching xfmr; lo-Z mic/tube Xcvr 15.99

HIGH SIERRA (HIS)

Platinum Pack Black HS-1800/Pro w/install kit $495.00
HS-120 Capacity hat 50.00
HS-202CL 2" rcvr lay back adapter; univ mtg bkt 100.00
HS-214CL 1¼" rcvr lay back adapt; univ mtg bkt 100.00

HobbyZone (HBZ)

1500 Firebird II RTF electric airplane .....D $ 79.99
1011 6v 600mah NiMH battery for 1500 .... 17.99
1026 DC peak charger 19.99
5500 Firebird II RTF electric airplane 84.99
2500 Firebird Commander RTF electric airplane 109.99
3305 Zig Zag Racer RTR electric boat 79.99
3500 Aerobird Challenger RTF electric airplane 149.99
4000 Fighterbird RTF electric airplane 119.99
1012 7.2v 900mah NiMH;2500/3305/3500/4000 24.99
1013 8.4v 900mah NiMH;2500/3500/4000 29.99
1026 DC peak charger 19.99
2015 3-hr wall charger for 3305/4000 ..... 8.99
4020 Sonic combat module; 2500 ..... 23.99
4025F Stealth target/combat module; *2500/4000 19.99
*Requires 4020 w/model 2500
6023 Aerial drop module; 2500/4000 ..... 19.99
7800 Sky Surfer RTF electric airplane 249.99
1026 DC peak charger 19.99
7809 7.2v 1100mah battery for 7800 ..... 29.99

House of Deals (HOU)

CPM-310 6" adjustable pedestal mount ..... $ 14.99

HUSTLER (HUS)

RM-80 80m CW 400w PEP resonator ..... $ 26.99
RM-75 75m phone 400w PEP resonator 26.99
RM-60 60m phone 400w PEP resonator 26.99
RM-40 40m 400w PEP resonator 24.99
RM-30 30m 400w PEP resonator 24.99
RM-20 20m 400w PEP resonator 21.99
RM-17 17m 400w PEP resonator 21.99
RM-15 15m 400w PEP resonator 15.99
RM-12 12m 400w PEP resonator 15.99
RM-11 CB 400w PEP resonator 15.99
RM-10 10m 400w PEP resonator 15.99
RM-6 6m 400w PEP resonator 15.99
RM-80S 80m CW 2kw PEP resonator 49.99
RM-75S 75m phone 2kw PEP resonator 49.99
RM-40S 40m 2kw PEP resonator 35.99
RM-20S 20m 2kw PEP resonator 28.99
RM-15S 15m 2kw PEP resonator 24.99
RM-11S CB 2kw PEP resonator 23.99
RM-10S 10m 2kw PEP resonator 23.99
RM-6S 6m 2kw PEP resonator 23.99
MO-1 54" mast for fender or deck mount 31.99
MO-2 54" mast for bumper mount 31.99
MO-3 54" no break-over mast 23.99
MO-4 22" mast for special applications 19.99
VP-1 Tri-band adapter 5.99
RSS-2 Resonator spring 9.99
QD-2 Stainless quick disconnect 19.99
L-14-144 12' RG-58, PL-259 to lugs 9.99
L-14-240 20' RG-58, PL-259 to lugs 12.99

STAINLESS 2" MOBILE BALL MOUNTS

SSM-1 Ball & spring, cadmium hardware ..... $ 46.99
SSM-2 Ball, cadmium hardware 26.99
SSM-3 Stainless steel spring 24.99

Hustler - continued — AES Price

1-1/2" MOBILE BALL MOUNTS

C-32	Chrome plated ball	$ 11.99
C-30	Chrome plated spring	11.99
C-29	Stainless steel spring	17.99
BM-1	Single strap bumper mt w/C-32	21.99

3/8-24 THREAD MOBILE MOUNTS

HLM	Trunk lip mount w/swivel	$ 22.99
HOT	Hustloff trunk lip mt w/swivel	23.99
MBM	Super magnet mount w/16' coax	19.99
RVM	Recreational vehicle mount	20.99
TLM	Trunk lip mount	21.99

HF ANTENNAS

4-BTV	40/20/15/10m 21' trap vertical	$119.99
5-BTV	80/40/20/15/10m 25' trap vertical	149.99
30-MTK	30m trap kit for 4-BTV/5-BTV	41.99
6-BTV	80/40/30/20/15/10m 24' trap vert	179.99

VHF/UHF BASE STATION ANTENNAS

G3-144	2m 3db 7.5' vertical antenna	$ 63.99
G6-144B	2m 6db 10' vertical antenna	114.99
G6-270R	2m/440 6db 7.6' base station ant	159.99
G7-144	2m 7db 15' vertical antenna	159.99
G7-220	220 MHz 7db 10' vertical antenna	149.99
G6-440	440 MHz 6db 7' vertical antenna	139.99

VHF/UHF MOBILE ANTENNAS

BBG-144	2m 3.4db NMO coil/whip only	$ 39.99
BBGT-144	2m 3.4db NMO trunk lip mt ant	49.99
BBG-440-5	440 5db NMO coil/whip only	39.99
BBGT-440-5	440 5db NMO trunk lip mt ant	49.99
BBL-144A	2m ¾" hole mt antenna, 3.4db	39.99
BBLT-144A	2m trunk lip mt ant, 3.4db	47.99
CG-144	2m ⅜-24 ant, 7' high, 5.2db	31.99
CGT-144	2m trunk mt ant, 7' high, 5.2db	51.99
CG-220	220 MHz ⅜-24 ant, 5.2db	29.99
CGT-220	220 MHz 5.2db tnk mt ant ....Δ	29.99
LMB-144	2m 3.4db black NMO coil/whip only	22.99
LMB-440-5	440 5db black NMO coil/whip only	19.99
LMC-144	2m 3.4db NMO coil/whip only	19.99
LMC-270	2m/440 2.4/4db NMO coil/whip only	31.99
LMC-440-5	440 5db NMO coil/whip only	19.99
LMG-144	2m 3.4db NMO pushpin coil/whip only	25.99
LMG-440-5	440 5db NMO pushpin coil/whip only	19.99
MKR-2	Radial kit for CG/RX/SF-antennas	20.99
MX-2	2m 3db black & chrome NMO mag mt ant	34.99
MX-2B	2m 3db all black NMO mag mt ant	39.99
MX-220	220 3db blk & chrome NMO mag mt ant	34.99
MX-270	2m/440 2.4/4db chrome NMO mag mt ant	59.99
MX-440	440 5db blk & chrome NMO mag mt ant	36.99
MX-440B	440 5db all black NMO mag mt ant	36.99
RX-2	2m 3.4db magnetic mount ant	24.99
RX-220	220 3.4db magnetic mt antenna	24.99
RX-440	440 5db magnetic mt antenna	24.99
SF-2	2m ⅜-24 ant, 4' high, 3.4 db	14.99
SF-220	220 MHz ⅜-24 antenna, 3 db	14.99
THF	140-500 MHz ¼ wave trunk mount ant	23.99
UGM	140-500 MHz ¼ wave BNC mag mt ant	21.99
UHT-1	140-500 MHz ¼ wave roof mt ant	14.99

CB & MONITOR ANTENNAS

1C-11	White trunk mount CB antenna	$ 13.99
1C-11B	Black trunk mt CB antenna	13.99
1C-100	White magnetic mount CB antenna	19.99
1C-100B	Black magnetic mt CB antenna	19.99
DTG	25" fg double-talk gutter mt CB ant	39.99
FG-27S	48" CB whip	11.99
HQ-27	Power Packer ⅜-24 CB whip	17.99
HQ-27M	Power Packer trunk mt CB antenna	36.99
HQD	Dual fg mirror mount CB antenna	49.99
HQT	Single fg mirror mount CB antenna	27.99
RQM	Magnetic mount CB antenna	19.99
RTG-27L	25" CB antenna w/rain gutter mt	26.99
RTM	25" magnetic mount CB antenna	16.99

Hustler - continued — AES Price

RTS-27L	25" CB antenna w/roof mount	26.99
SCB/BLK	46" black CB whip	29.99
SCB/BLU	46" blue CB whip	29.99
SCB/RED	46" red CB whip	29.99
SCB/WHT	46" white CB whip	29.99
SCB-S/BLK	35" black CB whip	29.99
SCB-S/BLU	35" blue CB whip	29.99
SCB-S/RED	35" red CB whip	29.99
SCB-S/WHT	35" white CB whip	29.99
DCL-B	Discone monitor ant/50' coax/BNC plug	34.99
DCX	Discone monitor ant; 40-700 MHz	23.99
MOR-B	Roof/deck mt tri-band BNC monitor ant	18.99
MOT-B	Trunk lip mt tri-band BNC monitor ant	19.99
MRM-B	Magnet mt tri-band BNC monitor ant	19.99

HY-GAIN (HYG)

HF BEAM ANTENNAS

LJ-103BA	3el 7.9db 8' boom 10m beam	$159.99
LJ-105CA	5el 10.8db 24' boom 10m beam	289.99
LJ-153BA	3el 7.9db 12' boom 15m beam	209.99
LJ-204BA	4el 8.2db 26' boom 20 or 17m beam	539.99
TH-3JRS	3el 600w PEP 20/15/10m beam	359.99
TH-3MK4	3el 8db 14' boom 20/15/10m beam	469.99
TH-5MK2	5el 8.3db 19' boom 20/15/10m beam	699.99
TH-7DX	7el 8.77db 24' boom 20/15/10m beam	799.99
BN-86	3-30MHz balun for HF beam	79.99

MULTI-BAND HF VERTICAL ANTENNAS

AV-14AVQ	40/20/15/10m 18' vertical ant	$169.99
AV-18AVQ II	80/40/20/15/10m vertical ant	229.99
AV-18HT	HyTower 80/40/20/15/10m 53' vert T*	799.99
AV-620	20/17/15/12/10/6m 22.5' vertical	269.99
AV-640	40/30/20/17/15/12/10/6m 25.5' vert	359.99
DX-88	160/40/30/20/17/15/12/10m 25' vert	369.99

***AV-18HT is drop-shipped (shipped direct to you from the Hy-Gain factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Starkville, Mississippi via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.**

VHF/UHF ANTENNAS

DB-218SAT	VHF/UHF Oscar Link system	$529.99
VB-25FM	5el 11.2db 75" boom 2m beam	59.99
VB-64DX	4el 10.4db 12' boom 6m beam	144.99

ANTENNA ROTORS

AR-40	3 sq ft antenna rotor/5-wire	$269.99
CD-45-II	8.5 sq ft antenna rotor/8-wire	369.99
HAM-IV	15 sq ft antenna rotor/8-wire	529.99
HAM-V	Digital 15 sq ft antenna rotor/8-wire	899.99
HDR-300A	Hvy duty dig 25 sq ft rotor/8-wire	1229.99
T-2X	Tailtwister 20 sq ft antenna rotor/8-wire	619.99
T-2XD	Tailtwister dig 20 sq ft ant rotor/8-wire	979.99

OPTIONAL ACCESSORIES FOR ROTORS

DCU-1	Dig rotor control; CD-45/HAM-IV/T-2X	$569.99
MSHD	Lwr mast support; HAM-IV/V/T-2X/XD	99.99
MSLD	Lower mast support; CD-45-II/AR-40	39.99
TSP-1	Tower spacer plate	34.99

See BELDEN for rotor cable

iBOTZ (IBO)

MR-1001	Soundtracker robot kit	$ 29.99
MR-1002	Antoid robot kit	49.99

ICC (ICC)

Nitelogger II	Automatic tape recorder activator	$ 69.99

ICOM (ICO)

UT-66	Voice synthesizer; IC-775DSP ....Δ	$ 69.99

Icom - continued — AES Price

IC-756PRO II	Xcvr/Rcvr/6m/IF-DSP/tuner/keyer	*2299.99
*Price w/instant coupon; coupon expires 6/30/04		
PS-125 ps FREE with IC-756PRO II! thru 6/30/04		
(BET) I-Mate	Msg acc; 746PRO/756PRO II	74.99
PS-125	25A switching power supply	299.99
AH-4	80-6m 120w auto wire ant tuner	259.99
AH-2B	Whip w/mt; 40-6m use tuner	299.99
AH-2B	extra whip only	119.99
CT-17	CI-V level converter	129.99
HM-36	Scanning hand mic	74.99
OPC-025D	Extra DC cable	29.99
SM-6	Desk microphone	99.99
SM-20	Deluxe desk microphone	199.99
SP-20	Speaker w/audio filter	239.99
SP-21	External speaker	119.99
UT-102	Voice synthesizer	74.99
RS-746	Win remote control software; IC-746 .D	69.99
IC-746PRO	Xcvr/Rcv/6m/2m/IF-DSP/tuner/mic	*1379.99
*Price w/instant coupon; coupon expires 6/30/04		
PS-125 ps FREE with IC-746PRO! thru 6/30/04		
(BET) I-Mate	Msg acc; 746PRO/756PRO II	74.99
PS-125	25A switching power supply	299.99
AH-4	80-6m 120w auto wire ant tuner	259.99
AH-2B	Whip w/mt; 40-6m use tuner	299.99
AH-2B	extra whip only	119.99
CR-338	High stability crystal unit	81.99
CT-17	CI-V level converter	129.99
HM-36	Scanning hand mic	74.99
OPC-025D	Extra DC cable	29.99
SM-6	Desk microphone	99.99
SM-20	Deluxe desk microphone	199.99
SP-20	Speaker w/audio filter	239.99
SP-21	External speaker	119.99
UT-102	Voice synthesizer	74.99
UT-30	Tone encoder; IC-707 ....Δ	49.99
IC-718	HF Xcvr/SW Rcvr/mic	569.99
UT-106 DSP FREE with IC-718! thru 6/30/04		
(BET) 706 Tune Control for IC-718		32.99
PS-125	25A switching power supply	299.99
AH-4	80-6m 120w auto wire ant tuner	259.99
AH-2B	Whip w/mt; 40-6m use tuner	299.99
AH-2B	extra whip only	119.99
AT-180	Auto coax antenna tuner; HF+6m	369.99
OPC-598	23' extension cable for AT-180	69.99
CR-338	High stability crystal unit	81.99
CT-17	CI-V level converter	129.99
FL-52A	500 Hz 455 KHz IF CW filter	179.99
FL-53A	250 Hz 455 KHz IF CW filter	179.99
FL-96	2.8 KHz 455 KHz IF SSB filter ....Δ	139.99
FL-222	1.9 KHz 455 KHz IF SSB filter	199.99
FL-257	3.3 KHz 455 KHz IF SSB filter	189.99
Suggest dealer installation of filters in IC-718		
MB-5	Mobile mount	59.99
MB-23	Side mount carrying handle	15.99
OPC-025D	Extra DC cable	29.99
SM-6	Desk microphone	99.99
SM-20	Deluxe desk microphone	199.99
SP-7	Small external speaker	94.99
SP-20	Speaker w/audio filter	239.99
SP-21	External speaker	119.99
UT-102	Voice synthesizer	74.99
UT-106	Plug-in DSP	139.99
IC-703	10w mini HF Xcvr/50 ohm tuner/DSP	*619.99
*Price w/instant coupon; coupon expires 6/30/04		
IC-703 Plus	10w mini HF+6m Xcvr/tuner/DSP	*649.99
*Price w/instant coupon; coupon expires 6/30/04		
AH-4	80-6m 120w auto wire ant tuner	259.99
AH-2B	Whip w/mt; 40-6m use tuner	299.99
AH-2B	extra whip only	119.99
AH-703	40/20/15/10/6m 20w 4.6' antenna	199.99
BC-155A	Battery charger for BP-228	29.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

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	AES Price
BP-228 9.6v 2800mah external nicad pack	89.99
CT-17 CI-V level converter	129.99
FL-52A 500 Hz 455 KHz IF CW filter	179.99
FL-53A 250 Hz 455 KHz IF CW filter	179.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
HM-118TN TTP microphone	59.99
LC-156 Back pack carrying case	89.99
MB-62 Mounting bracket for main unit	25.99
MB-63 Mounting bracket for control panel	18.99
MB-65 Mounting base platform	35.99
MB-72 Carrying handle	14.99
OPC-581 11.5' separation cable	60.99
OPC-587 16' separation cable	79.99
OPC-599 7+8-pin to 13-pin adapter	60.99
OPC-742 13-pin cable	59.99
OPC-1229 Extra DC cable	28.99
RMK-706 Package; MB-62/MB-63/OPC-581	70.99
SM-6 Desk microphone	99.99
SM-20 Deluxe desk microphone	199.99
OPC-589 8-pin to jack adapt; SM-6/8/20	35.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-102 Voice synthesizer	74.99
IC-706 Mk II-G Mini Xcvr/Rcvr/6m/2m/440/DSP	769.99
RMK-706 FREE with IC-706 Mk II-G! thru 6/30/04	
(BET) **706 Tune Contr**ol for IC-706-series	32.99
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner	259.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
AT-180 Auto coax antenna tuner; HF+6m	369.99
OPC-598 23' extension cable for AT-180	69.99
CR-282 High stability crystal unit; Mk II G	149.99
Suggest dealer install; CR-282, IC-706 Mk II-G	
CT-17 CI-V level converter	129.99
FL-100 500 Hz 9 MHz IF CW filter	119.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-103 2.8 KHz 9 MHz IF SSB filter	109.99
FL-223 1.9 KHz 9 MHz IF SSB filter	89.99
FL-232 350 Hz 9 MHz IF CW/RTTY filter	89.99
HM-118TN TTP microphone	59.99
LC-156 Back pack carrying case	89.99
MB-62 Mounting bracket for main unit	25.99
MB-63 Mounting bracket for control panel	18.99
MB-65 Mounting base platform	35.99
MB-72 Carrying handle; Mk II-G only	14.99
OPC-025D Extra DC cable	29.99
OPC-581 11.5' separation cable	60.99
OPC-587 16' separation cable	79.99
OPC-599 7+8-pin to 13-pin adapter	60.99
OPC-742 13-pin cable	59.99
RMK-706 Package; MB-62/MB-63/OPC-581	70.99
SM-6 Desk microphone	99.99
SM-20 Deluxe desk microphone	199.99
OPC-589 8-pin to jack adapt; SM-6/8/20	35.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-102 Voice synthesizer	74.99
AH-710 1.9-30 MHz 80' folded dipole/98' coax	269.99
PW-1 160-15+6m linear amplifier/ps/tuner	4549.99
OPC-137 Adapter cable; older Icom Xcvr	19.99
UT-86 Tone squelch; plain IC-706 Mk II Δ	69.99

RECEIVERS

R-2-07* .5MHz-1.3GHz AM/FM hand Rcvr	$149.99
AD-92SMA SMA- BNC adapter	16.99
BC-127A Extra nicad charger Δ	20.99
CS-R2 DOS programming software Δ	2.99
OPC-474 Cloning cable (R-2 to R-2)	18.99
OPC-478 PC RS-232C cable	45.99
CSW-HHRX Win prog soft/cable; R-2/R-10	50.99

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	AES Price
HP-4 Lightweight headphones	29.99
SP-13 Earphone	4.99
R-5-06 .15M-1.3G AM/FM hand/batts/cgr/cell blkd	199.99
R-5-11* .5MHz-1.3GHz AM/FM hand Rcvr	199.99
AD-92SMA SMA- BNC adapter	16.99
CP-18A Cig lighter cable	30.99
CS-R5 Win programming software	40.99
OPC-474 Cloning cable (R-5 to R-5)	18.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
HP-4 Lightweight headphones	29.99
LC-146A Carrying case	24.99
R-3-26 .5M-2.45G AM/FM/TV hand Rcvr/cell blkd	349.99
R-3-27* .5MHz-2.45GHz AM/FM/TV hand Rcvr	489.99
BC-135 Desktop charger w/adapter cup	80.99
BP-206 Extra 3.7v 1650mah lith ion batt	63.99
CP-18A Cig lighter cable	30.99
CS-R3 Win programming software	24.99
OPC-474 Cloning cable (R-3 to R-3)	18.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
HP-4 Lightweight headphones	29.99
LC-151 Carrying case	24.99
SP-13 Earphone	4.99
R-10-05 .5M-1.3G AM/FM/SSB hand/cell blkd	299.99
R-10-15* .5MHz-1.3GHz AM/FM/SB HH Rcvr	299.99
CP-12L Right angle cig cable w/filter	36.99
CS-R10 DOS programming software; R-10	13.99
OPC-474 Cloning cable (R-10 to R-10)	18.99
OPC-478 PC RS-232C cable	45.99
CSW-HHRX Win prog soft/cable; R-10/R-2	50.99
CT-17 CI-V level converter	149.99
HP-4 Lightweight headphones	29.99
LC-140 Carrying case for R-10	38.99
OPC-254L Right angle mini DC pwr cable	14.99
SP-13 Earphone	4.99
BON CS-40 Bonito soft; PCR-1000-02/07 Δ	68.99
PCR-1000-02 BON PC Rcvr/software/cell blkd	374.99
PCR-1000-07 BON* PC Rcvr/software	374.99
AH-7000 25-1000 MHz discone ant w/coax	169.99
OPC-131 DC power cord	13.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-106 Plug-in DSP unit	139.99
R-75 .03-60 MHz shortwave receiver	529.99
UT-106 DSP FREE with R-75! thru 6/30/04	
CR-282 High stability crystal unit	149.99
CT-17 CI-V level converter	129.99
FL-52A 500 Hz 455 KHz IF CW filter	179.99
FL-53A 250 Hz 455 KHz IF CW filter	179.99
FL-96 2.8 KHz 455 KHz IF SSB filter Δ	139.99
FL-100 500 Hz 9 MHz IF CW filter	119.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-103 2.8 KHz 9 MHz IF SSB filter	109.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-223 1.9 KHz 9 MHz IF SSB filter	89.99
FL-232 350 Hz 9 MHz IF CW/RTTY filter	89.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
OPC-869 DC cable	13.99
RS-R75 PC control software w/RS-232 cable	80.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP unit	139.99
R-8500-02 .1M - 2G receiver/cell blocked	1499.99
R-8500-04* .1MHz - 2GHz receiver	1499.99
AH-7000 25-1000 MHz discone ant w/coax	169.99
CR-293 High stability xtal unit	279.99
FL-52A 500 Hz CW filter	179.99
MB-12 Mobile mount	49.99

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MB-23 Side mount carrying handle	15.99
RS-R8500 PC control soft w/RS-232 cable	80.99
SP-7 Small external speaker	94.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99

*United States & state government agencies or a political subdivision thereof and communications utility companies and their legal agents **ONLY** may purchase unblocked models of R-2/R-3/R-5/R-10/PCR-100/PCR-1000/R-8500 for official government or communications utility company use only. Mail or FAX purchase order to AES. Exports: inquire.

2m TRANSCEIVERS

UT-101 DTMF unit for IC-2000H Δ	$ 28.99
IC-2100H-25N 50w 2m FM Xcvr/NEW TTP mic	169.99
CS-2100 DOS cloning software	13.99
OPC-478 PC RS-232C cable	45.99
CSW-2100 Win prog soft/cable; IC-2100H	50.99
HM-90A Wireless microphone Δ	119.99
BC-96 Wireless microphone holder Δ	29.99
EX-1759 Infrared receiver Δ	99.99
HM-133S Extra TTP mic; 2100H/2100H25N	90.99
MB-17A Quick release bracket	49.99
MB-28H Extra mobile bracket	26.99
OPC-346 Extra 9.8' DC cable	28.99
OPC-347 23' DC cable	46.99
OPC-440 16.4' mic extension cable	85.99
OPC-441 16.4' speaker extension cable	33.99
OPC-474 Radio to radio cloning cable	18.99
OPC-589 8-pin mic jack adapter cable	35.99
OPC-647 8.2' mic extension cable	54.99
SP-10 Slim-line external speaker	69.99
IC-V8000 75w 2m FM Xcvr w/WX alert/scan	189.99
CS-V8000 Windows cloning software	35.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
OPC-347 23' DC cable	46.99
OPC-440 16.4' mic extension cable	85.99
OPC-441 16.4' speaker extension cable	33.99
OPC-474 Radio to radio cloning cable	18.99
OPC-589 8-pin mic jack adapter cable	35.99
OPC-647 8.2' mic extension cable	54.99
OPC-1132 9.8' DC cable	28.99
SP-10 Slim-line external speaker	69.99
UT-108 DTMF decoder unit	35.99
V8000-MMB Extra mobile bracket	26.99
CS-207 DOS prog software; IC-207H Δ	9.99
CSW-207/2710 Win cloning soft; 207/2710 Δ	29.99
OPC-601 23' separation cable; IC-207H Δ	59.99
OPC-646 Prog cbl; CS-207//CSW-207/2710 Δ	89.99
RMK-3 Package; MB-58/OPC-600/OPC-647 Δ	79.99
UT-89 Tone scan/decode unit; IC-2350H Δ	89.99
UT-104 Tone squelch unit; IC-2710H Δ	39.99
IC-208H 55w 2m/50w 440 FM Xcvr	299.99
CS-208 Win cloning software	35.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
MB-17A Quick release bracket	49.99
MB-58 Remote controller bracket	39.99
MB-65 Mounting base platform	35.99
OPC-347 23' DC cable	46.99
OPC-440 16.4' mic extension cable	85.99
OPC-441 16.4' speaker extension cable	33.99
OPC-474 Radio to radio cloning cable	18.99
OPC-589 8-pin mic jack adapter cable	35.99
OPC-601R 23' separation cable	67.99
OPC-647 8.2' mic extension cable	54.99
OPC-1132 9.8' DC cable	28.99
SP-10 Slim-line external speaker	69.99
IC-2720H 50w 2m/35w 440 FM Xcvr	369.99
CS-2720 Win/DOS cloning software	35.99

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OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
MB-17A Quick release bracket	49.99
MB-84 Extra remote controller bracket	18.99
MB-65 Mounting base platform	35.99
MB-85 Combination bracket	25.99
OPC-347 23' DC cable	46.99
OPC-440 16.4' mic extension cable	85.99
OPC-441 16.4' speaker extension cable	33.99
OPC-474 Radio to radio cloning cable	18.99
OPC-589 8-pin mic jack adapter cable	35.99
OPC-647 8.2' mic extension cable	54.99
OPC-1132 9.8' DC cable	28.99
OPC-1156 11.5' separation cable	26.99
SP-10 Slim-line external speaker	69.99
CS-2800 Windows cloning software; 2800H Δ	12.99
OPC-872 Controller extension cable; 2800H Δ	19.99
UT-84 Tone squelch unit; IC-2700H/821H ..Δ	89.99
IC-910H 100w 2m/75w 430 FM/SSB Xcvr	1099.99
PS-125 25A switching power supply	299.99
AG-25 2m mast mounted GaSFET preamp	159.99
AG-35 430 MHz mast mounted preamp	169.99
AG-1200 1.2 GHz mast mt preamp	159.99
AG-2400 2.4GHz mast mt down converter	499.99
CR-293 High stability xtal unit	279.99
CT-17 CI-V level converter	129.99
FL-132 500 Hz main Rcvr CW filter	119.99
FL-133 500 Hz sub band Rcvr CW filter	119.99
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
SM-20 Deluxe desk microphone	199.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP unit (one per band)	139.99
UX-910 10w 1.2GHz module	499.99
ID-1 10w 1.2GHz FM/128k digital Xcvr/ctl head	1349.99
AH-1080 10GHz parabola antenna	1099.99
AH-1415 1.2GHz colinear antenna	2169.99

Accessories for IC-2AT

BM-112U/BC-16U Wall cgr; 5A/7/8 only .....Δ	$ 26.99
BP-4 Alkaline battery case .....Δ	35.99
CP-1 Cig cgr; BP-3/7/8//DC cord .....Δ	24.99
CP-11 Cig cord w/noise filter .....Δ	39.99
DC-1 DC operation module .....Δ	39.99
IC-T2H Sport 6w 2m FM HT/battery holder	99.99
AD-81 Batt pack adapter for rapid charger	17.99
BC-110A/BC-74 Extra wall charger	40.99
BC-119-N01 Desk charger (adapter required)	84.99
BC-133 Drop-in trickle charger	39.99
BC-122A AC adapter for BC-133	16.99
BP-194 AA alkaline battery case	18.99
BP-195 9.6v 700mah nicad battery	42.99
BP-196 9.6v 1050mah nicad battery .....†	39.99
CP-12L Rt angle cig charge cable w/filter	36.99
CP-17L Right angle cig cable for charger	24.99
CS-T2 DOS prog software for IC-T2	13.99
OPC-474 Cloning cable (T2 to T2)	18.99
OPC-478 PC RS-232C cable	45.99
CSW-HH4 Windows prog soft w/cable; T2	50.99
HM-46 Slim-line speaker/mic	45.99
HM-54 Hvy duty spkr/mic	79.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-145 Carrying case for IC-T2	38.99
LCF3 Swivel Leather case with swivel	50.99
MB-68 Extra standard belt clip	5.99

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	AES Price
MB-74 Spring loaded belt clip	12.99
MB-87 Swivel belt clip	9.99
OPC-254L Right angle mini DC chg cable	14.99
SP-13 Earphone	4.99
IC-V8 5.5w 2m FM HT/batt/cgr/TTP	124.99
AD-94-11 Adapter cup; BC-119-N01	17.99
BC-119-N01 Desk charger (adapter required)	84.99
AD-101 Batt adapt; BP-211/BC-119-N01	25.99
BC-144-01/21 Desk charger with adapter	89.99
BP-208 Battery case	18.99
BP-209 7.2v 1100mah 5.5w battery	53.99
BP-210 7.2v 1650mah 5.5w battery	80.99
BP-211 7.4v 1800mah lith ion battery	91.99
BP-222 7.2v 600mah 5.5w battery	35.99
CP-17L Right angle cig cable for charger	24.99
CS-V8 Cloning software for IC-V8	35.99
OPC-474 Cloning cable (V8 to V8)	18.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
HM-46L Slim-line spkr/mic, rt angle plug	45.99
HM-54 Hvy duty spkr/mic	79.99
HM-75A Remote control microphone	70.99
HM-128L Rt angle plug earphone+mic	25.99
HM-131L Rt angle spkr/mic/earph jack/revolv clip	38.99
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1L	24.99
VS-1L Right angle VOX-PTT unit for HS-94	42.99
LCF3G Swivel Leather case with swivel	50.99
MB-68 Extra standard belt clip	5.99
MB-74 Spring loaded belt clip	12.99
MB-87 Swivel belt clip	9.99
OPC-515L Right angle DC cord for charger	20.99
SP-13 Earphone	4.99
UT-108 DTMF decoder unit	35.99
IC-T22A 3w 2m FM HT/batt/cgr/TTP	199.99
IC-T7H 6w 2m/440 FM HT/batt/cgr/TTP	179.99
IC-W32A 5w 2m/440 FM HT/batt/cgr/TTP	259.99
AD-51 Batt pack adapt; W32A/rapid cgr	9.99
AD-56 Batt pack adapt; T7H/T22A/rapid cgr	18.99
BC-119-N11 Nicad/NiMH desk cgr (adapt required)	89.99
BP-170 Battery case	35.99
BP-172 4.8v 950mah battery	91.99
BP-173 9.6v 600mah battery	99.99
BP-180 7.2v 600mah battery	83.99
CP-12 Cig lighter cable w/filter	36.99
CP-12L Right angle cig cable w/filter	36.99
CS-T7 DOS prog software for IC-T7H	13.99
CSW-32 DOS prog software for IC-W32A	13.99
OPC-474 Cloning cable W32A to W32A	18.99
OPC-478 PC RS-232C cable	45.99
CSW-HH4 Windows prog soft/cbl; T7H/W32A	50.99
FA-1443B Extra 2m/440 dual band duck .Δ	29.99
HM-46 Slim-line speaker/mic	45.99
HM-46L Slim-line spkr/mic, rt angle plug; T22A	45.99
HM-54 Heavy duty spkr/mic	79.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-10 Boom mic/headset	69.99
HS-10SA VOX unit	69.99
HS-10SB PTT switchbox	69.99
HS-85 Headset w/VOX	89.99
HS-94 Ear-pc headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-125 Vinyl case; T22A w/BP170/171/172 D	2.99
LC-128 Vinyl case; IC-W32A	38.99
LC-136 Vinyl case; T7H w/BP170/171/172	38.99
LC-137 Vinyl case; T7H w/BP173/180	38.99
MB-30 Mobile/wall bracket	41.99
NCP-1 Nylon chest pack	39.99
OPC-254 Mini DC power cable	14.99

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	AES Price
OPC-254L Right angle mini DC pwr cable	14.99
SP-13 Earphone	4.99
AD-87 Batt pack adapter; rapid cgr; T81A .Δ	8.99
AD-88 PCB board; original BC-119-11 .....Δ	29.99
BC-119-N21 Nicad/NiMH desk cgr (use adapt) T81A Δ	89.99
BC-127A Extra nicad charger; IC-Q7 .....Δ	20.99
BP-197 Battery case for 3 AA; IC-T81A .....Δ	24.99
BP-198 4.8v 700mah NiMH batt; IC-T81A .Δ	39.99
BP-199 6v 700mah NiMH battery; IC-T81A Δ	59.99
BP-200L 9.6v 760mah NiMH battery; T81A Δ	79.99
CS-T81 Windows cloning soft; IC-T81A .....Δ	13.99
LC-146 Carrying case; IC-Q7 .....D	22.99
LC-148 Carrying case; IC-T81A .....Δ	19.99
OPC-782 Plug adapt cbl; HM46/HS85/SP13; Q7 Δ	16.99
IC-T90A 5w 6m/2m/440 HT/batt/cgr/lith	259.99
AD-92SMA SMA- BNC adapter	16.99
BC-139 Desk rapid charger	94.99
BP-216 Battery case for 2 AA	35.99
BP-217 7.4v 1300mah lith ion battery	89.99
CP-19R Cig lighter cable w/filter	44.99
CS-T90A Windows cloning software; IC-T90A	35.99
OPC-474 Cloning cable (radio to radio)	18.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable (Win XP only)	60.99
HM-46 Slim-line speaker/mic	45.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-85 Headset w/VOX	89.99
HS-94 Ear-pc headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-152A Carrying case	24.99
MB-83 Swivel belt clip	9.99
SP-13 Earphone	4.99

Accessories for IC-2SAT/2SRA/24AT/W2A

AH-20 Replacement rcv ant; IC-2SRA .....Δ	$ 24.99
BP-83 7.2v 600mah battery .....Δ	79.99
BP-84 7.2v 1000mah battery .....Δ	99.99
BP-90 AA alkaline battery case .....Δ	35.99
IC-2GXAT/HP 7w 2m HT/batt/cgr/TTP .....D	249.99
AD-25 Battery charger adapter .....Δ	49.99
AD-28 Batt pack adapt for rapid charger Δ	18.99
BC-119-N1T Nicad/NiMH desk cgr (adapt required)	89.99
BP-130A Battery case .....Δ	35.99
BP-157A 7.2v 900mah battery .....Δ	85.99
BP-174 12v 600mah battery .....Δ	79.99
HM-46 Slim-line speaker/mic	45.99
HM-46L Slim-line spkr/mic, rt angle plug	45.99
HM-54 Heavy duty spkr/mic	79.99
HM-128 Earphone+microphone	25.99
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
MB-30 Mobile/wall bracket .....Δ	41.99
OPC-288 Mini DC power cable .....D	19.99
SP-13 Earphone	4.99
AD-44 Batt adapter; rapid cgr; T21A .....Δ	.29

ACCESSORIES

AG-25 2m mast mounted GaSFET preamp	$159.99
AG-35 430 MHz mast mounted preamp	169.99
AG-1200 1.2 GHz mast mt preamp	159.99
CT-17 CI-V level converter	129.99
HM-12 Scan hand microphone	74.99
MB-23 Side mount carrying handle	15.99
OPC-137 Adapter cable; older Icom Xcvr ....D	19.99
PS-125 25A switching power supply	299.99
SM-6 Electret desk microphone	99.99
SM-20 Deluxe desk microphone	199.99
SP-5 Mobile speaker	49.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

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	AES Price
SP-20 Speaker w/audio filter	239.99
SP-21 External speaker	119.99
Comic Book 1 The Adventure Begins (Zack & Max)	4.95
Comic Book 2 Lost in Seattle (Zack & Max)	4.95

CONSUMER ELECTRONICS

A-23 5w compact Navicom air handheld	$399.99
IC-M1V Waterproof 5w VHF marine handheld	199.99
IC-M3A 5w VHF marine handheld w/AA nicads D	149.99
IC-M32 Waterproof 5w VHF marine handheld	149.99
IC-M302W02 White waterproof 25w VHF marine	159.99
IC-M402W02 White waterproof 25w VHF marine	199.99
M-710 (21) 150w HF marine SSB .spec order	1399.99
AT-130 HF marine auto ant tuner spec order	449.99
M-802 150w DSP marine SSB Xcvr spec order	1749.99
IC-4088A Dlx family radio service handheld	89.99
BP-202 Nicad battery; IC-4008A/4088A	17.99
CP-18A Cig lighter cable	30.99
HM-46 Slim-line speaker/mic	45.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-51 Headset w/VOX	96.99
HS-85 Headset w/VOX	89.99
HS-94 Ear-piece style headset; use w/VS-1L	24.99
VS-1 VOX-PTT unit for HS-94	42.99
IC-F21-GM 15 ch 4w GMRS/FRS handheld	149.99

IDIOM PRESS (IDI)

K-3 Logikey CW keyer	$129.99
HK-3 Hook-up kit	10.99

International Ant (IAC)

160m double **Bazooka** 248' antenna Δ	$214.99
160m double **Bazooka Shorty** 168' antenna Δ	199.99
80m double **Bazooka** 121' antenna Δ	149.99
80m double **Bazooka Shorty** 84' antenna Δ	159.99
40m double **Bazooka** 64' antenna Δ	124.99
40m double **Bazooka Shorty** 40' antenna Δ	119.99
160m-S 160m half sloper 127' antenna Δ	139.99
80m-S 80m half sloper 67' antenna Δ	109.99
40m-S 40m half sloper 33' antenna Δ	69.99

IRON HORSE (See ATOC)

ISOTRON (ISO)

160C 160m 9.5' x 16" x 15" 100 KHz bandwidth ant	$173.99
80 80m 32" x 16" x 15" 110 KHz bandwidth ant	98.99
40 40m 22" x 16" x 15" 250 KHz bandwidth ant	88.99
20 20m 21" x 8" x 4" 350 KHz bandwidth ant	78.99
15 15m 21" x 1.5" x 4" 450 KHz bandwidth ant	78.99
10 10m 16" x 1.5" x 4" 1 MHz bandwidth ant	78.99
6 6m 16.5" x 2" x 4" 1.25 MHz bandwidth ant	78.99
80/40 Combo* 80/40m 32" x 16" x 30" ant	177.99
*Requires coaxial "T's" & jumpers - not included	
20/15/10 Combo 20/15/20m combo ant	198.99

JR (JRP)

317275 XS3 synth FM pistol/1-Z590W/1-Z270 75MHz	$329.99
SP-100 C-1 fwd/rev speed control	64.99

K-COM (KCO)

RF-1 Modular telephone 3-30 MHz RFI filter	$ 16.99
RF-1/Low Modular phone .5-3 MHz RFI filter	16.99
RF-1/2-line 2-line modular 3-30 MHz RFI filt	22.99
RF-1/coiled Coiled cord modular 3-30MHz filt	22.99
RF-2 Hard-wired telephone 3-30 MHz RFI filt	10.99
RF-2/Low Hard-wired phone .5-3 MHz RFI filt	10.99

KANTRONICS (KAN)

KPC-3 Plus/128K Small packet TNC/128K RAM	$186.99
KPC-**9612 Plus/128K** 9600 controller/128K	349.99
(CSS) **Pacterm 98** Software; Kantronics TNCs	79.99
12VDC Adaptor 300ma adaptor; KPC-3	12.99

Kantronics - continued

	AES Price
Host Master II+ IBM software	89.99
KAM 98 Single port multi-mode dig controller	399.99
(CSS) **Pacterm 98** Software; Kantronics TNCs	79.99
12VDC Adaptor 300ma adaptor; KAM 98	12.99
KAM XL All mode TNC w/DSP modems	399.99
(CSS) **Pacterm 98** Software; Kantronics TNCs	79.99
12VDC Adaptor 300ma adaptor; KAM XL	12.99
APRS adapter cable; GPS to Kantronics TNC	32.99

KENWOOD (KEN)

DRU-2 Dig recording unit; TS-950SDX Δ	$139.99
SP-950 Ext spkr/audio filters; TS-950SDX Δ	149.99
TS-B2000 PC ctl HF/6m/2m/430 Xcvr/tuner	1549.99
TS-2000 HF/6m/2m/430 Xcvr/ant tuner	1699.99
*UT-20 1.2GHz module Kenwood install only	
TS-2000X HF/6m/2m/430/1.2 Xcvr/tuner	2199.99
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-53 Heavy duty 22.5A power supply	249.99
ARCP-2000 PC control soft (inc w/TS-B2000)	82.99
DRU-3A Digital recording unit	129.99
MB-430 Mobile mounting bracket	49.99
MC-43S Extra 8-pin hand mic w/up-down	59.99
MC-57DM Back-lit TTP hand mic	79.99
MC-60A 8-pin amp desk mic w/up-down	149.99
MC-80 8-pin electret desk mic/up-down .D	109.99
MC-90 2-head DSP desk microphone	239.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
RC-2000 Remote faceplate mobile kit	349.99
SP-23 External speaker	89.99
VS-3 Voice synthesizer	39.99
TS-870S 9-band Xcvr/Rcvr/IFDSP/tuner	1999.99
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-52 Heavy duty power supply	269.99
DRU-3A Digital recording unit	129.99
MC-43S Extra 8-pin hand mic w/up-down	59.99
MC-60A 8-pin amp desk mic w/up-down	149.99
MC-80 8-pin electret desk mic/up-down .D	109.99
MC-90 2-head DSP desk microphone	239.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
SO-2 TCXO unit	179.99
SP-31 External speaker	99.99
TS-480HX 200w HF/100w 6m Xcvr	1379.99
TS-480SAT 100w HF/6m Xcvr w/auto tuner	1269.99
PS-53 Hvy duty 22.5A ps (use 2 for 200w)	249.99
MC-43S Extra 8-pin hand mic w/up-down	59.99
MC-47 Multi-function 8-pin hand mic	59.99
MC-60A 8-pin amp desk mic w/up-down	149.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-4Z 13' panel extension kit	59.99
PG-20 22' DC cable	49.99
SO-3 TCXO unit	109.99
SP-23 External speaker	89.99
SP-50B High quality external mobile spkr	55.99
VGS-1 Voice guide & storage unit	69.99
YF-107C 500 Hz CW filter	119.99
YF-107CN 270 Hz CW filter	119.99
YF-107SN 1.8 KHz CW filter	119.99
TS-570D(G) 9-band Xcvr/Rcv/AFDSP/tuner/mic	989.99
TS-570S(G) 9-band Xcv/6m/Rcv/AFDSP/tune/mic	1099.99
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-53 Heavy duty 22.5A power supply	249.99
DRU-3A Digital recording unit	129.99
MB-430 Mobile mounting bracket	49.99
MC-43S 8-pin hand mic w/up-down	59.99
MC-60A 8-pin amp desk mic w/up-down	149.99
MC-80 8-pin electret desk mic/up-down .D	109.99
MC-90 2-head DSP desk microphone	239.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
SO-2 TCXO unit	179.99

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	AES Price
SP-23 External speaker	89.99
SP-50B High quality external mobile spkr	55.99
VS-3 Voice synthesizer	39.99
YK-88C-1 500 Hz CW filter	129.99
YK-88CN-1 270 Hz CW filter	129.99
YK-88SN-1 1.8 KHz SSB filter	129.99
TS-50S Compact HF Xcvr/SW Rcvr/mic/mt D	649.99
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-53 Heavy duty 22.5A power supply	249.99
AT-50 External HF auto tuner	329.99
PG-4M 18' extension cable for AT-50	29.99
MC-47 Extra multi-func 8-pin hand mic	59.99
MC-60A 8-pin amp desk mic w/up-down	149.99
MC-80 8-pin electret desk mic/up-down .D	109.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
SO-2 TCXO unit	179.99
SP-23 External speaker	89.99
SP-50B High quality external mobile spkr	55.99
TC-50/50Case Travel case; TS-50S/60S Δ	89.99
YK-107C 500 Hz CW filter Δ	129.99
7-pin DIN plug	4.99
8-pin DIN plug	6.99
13-pin DIN plug	9.99
AT-50 External HF auto tuner	329.99
PG-4M 18' extension cable for AT-50	29.99
HS-5 Deluxe headphones	79.99
HS-6 Lightweight headphones	59.99
KPS-15 23A switching ps w/fan, 25A surge	149.99
LF-30A 1kw PEP low pass filter	64.99
MC-43S 8-pin hand mic w/up-down switch	59.99
MC-60A 8-pin amp desk mic w/up-down	149.99
MC-80 8-pin electret desk mic/up-down .D	109.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-3B 15A DC line noise filter	29.99
SP-50B High quality external mobile speaker	55.99
TU-7 Prog encoder; 2550/751A/TW-4100A Δ	54.99
UT-10 1.2GHz 10w module for TS-790A D	499.99
YG-455C-1 500 Hz CW filter; TS-450/690 D	149.99
TM-642AD 50w 2m/25w 220FM/backlit TTP mic	739.99
TM-742AD 50w 2m/35w 440 FM/backlit TTP	639.99
DFK-3 9' separate display cable kit	26.99
DFK-4 13' remote cable kit	59.99
DFK-7 Deluxe 22' remote cable kit	89.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
TSU-7 CTCSS decoder unit	59.99
SP-50B High quality external mobile spkr	55.99
UT-50S 50w 6m unit	329.99
UT-220S 25w 220 MHz unit	329.99
UT-440S 35w 440 MHz unit	299.99
UT-1200 10w 1.2 GHz unit	399.99
TM-D700A 50w 2m/35w 440 FM/1200/9600	519.99
MB-201 Extra mobile bracket	25.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
PG-4X 13' extension cable kit	69.99
PG-5A Packet data cable	15.99
SP-50B High quality external mobile spkr	55.99
VS-3 Voice synthesizer	39.99
TM-G707A 50w 2m/35w 440 FM/TTP mic	269.99
TM-V7A 50w 2m/35w 440 FM Xcvr/TTP mic	399.99
DFK-3C 9' separate display cable kit	44.99
DFK-4C 13' remote cable kit	64.99
DFK-7C Deluxe 23' remote cable kit	99.99
MB-201 Extra mobile bracket	25.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
PG-4S PC interface cable	32.99
PG-5A Packet data cable	15.99
SP-50B High quality external mobile spkr	55.99

Kenwood - continued

	AES Price
VS-3 Voice synthesizer	39.99
TM-541A 10w 1.2 GHz FM Xcvr/TTP/encoder	449.99
KQT-8/TSU-6 Prog CTCSS decoder	49.99
MB-201 Extra mobile bracket	25.99
PG-2N Extra DC cable	17.99
SP-50B High quality external mobile spkr	55.99
TM-461A 35w 440 FM Xcvr w/TTP mic	439.99
MB-201 Extra mobile bracket	25.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
SP-50B High quality external mobile spkr	55.99
TSU-8 CTCSS decoder	59.99
TM-271A 60w 2m FM Xcvr w/WX alert	189.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
PG-5D PC interface cable	79.99
SP-50B High quality external mobile spkr	55.99
MC-45DM Multi-function modular TTP mic .D	19.99
MC-57DM Back-lit TTP mic;241/331/441/541	79.99
MC-58DM Back-lit TTP mic;251/733/742/255/V7A	79.99
ME-1 Mem expansion; TH-28A/78A/TM-251A D	2.99
TH-22ATH 5w 2m FM HT/batt/cgr/TTP .....Δ	199.99
BT-9 4-AA battery holder .....Δ	29.99
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
KSC-8A Drop-in cgr; 25/26/75/77/22/42/79 Δ	26.99
KSC-14 2-pack rapid charger .....Δ	59.99
PB-33 6v 1200mah battery .....Δ	89.99
PB-34 9.6v 600mah 5w battery .....Δ	89.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
SMC-32 Mini water resist rt angle spkr/mic	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
TSU-8 CTCSS decoder; TH-22/42AT	59.99
WR-2 Water resistant bag; TH-22/42AT	29.99
TH-K2AT 5w 2m FM HT/batt/cgr/TTP	159.99
BT-14 6-AA battery holder	19.99
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
KHS-21 Boom mic headset	39.99
KSC-24 Rapid charger	46.99
PB-43N 7.2v 1100mah NiMH battery	44.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
PG-4Y Programming cable	32.99
SC-54 Soft case	16.99
SMC-32 Mini water resist rt angle spkr/mic	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
WR-2 Water resistant bag; TH-22/42AT	29.99
TH-G71A 5w 2m/440 FM HT/batt/cgr/TTP	229.99
TH-D7A(G) 5w 2m/440 FM HT/1200/9600 TNC	359.99
BC-19 Rapid charger	64.99
BT-11 4-AA battery holder	17.99
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
J29-0631-13 Belt clip for batt; D7A/G71A	4.99
PB-39 9.6v 600mah 5w battery	57.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
PG-4P Computer control cable; TH-G71A	32.99
PG-4V VC-H1 cable for TH-D7A(G) .....Δ	49.99
PG-4W PC software/cable; TH-D7A(G)	55.99
SC-45 Soft case for TH-G71A/PB-38/39	15.99
SC-47B Black soft case for TH-D7A(G)	15.99
SC-47OR Orange soft case for TH-D7A(G)	15.99
SMC-32 Mini water resist rt angle spkr/mic	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
WR-2 Water resistant bag	29.99

Kenwood - continued

	AES Price
TH-F6A 5w 2m/220/440 FM HT/lith ion batt	329.99
BT-13 AA battery case	25.99
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
KHS-21 Boom mic headset	39.99
PB-42L Extra 7.4v 1550mah lithium ion batt	79.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
PG-4P Computer control cable	32.99
SC-51 Soft case w/swivel belt clip	16.99
SMC-32 Mini water resist rt angle spkr/mic	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
WR-2 Water resistant bag	29.99
E59-0407-08 16-pin DIN plug only; VCH-1 Δ	14.99
KCT-24S VCH-1 to PC software/cable .....Δ	29.99
SC-46P Protective case for VCH-1 .....D	9.99

CONSUMER ELECTRONICS

KTC-H2A1* Sirius portable satellite radio tuner	$ 99.99
*Subscription required	
KPA-H2C Car docking kit w/magnetic ant	29.99
KPA-H2H Home docking kit w/desktop ant	49.99
TKM-707 150w HF marine SSB Xcvr spec order	1249.99
KAT-1 HF marine auto ant tuner ...spec order	569.99
UBC-3 Nicad desk charger; UBZ-LH14BK ...D	14.99
UPB-2 Nicad battery pack; UBZ-LH14BK ....D	19.99
USC-5B Black nylon case; UBZ-LH14BK .....D	8.99

KESTER (KES)

82-5000-0004 .5 oz 60/40 solder, .040 dia	$ 1.99

KLEINHUIS (KLE)

1309 Isolated grounding bar	$ 14.99

KOSS (KOS)

KTX/8 Collapsible stereophone w/vol control	$ 14.99
QZ/5 Passive noise reduction stereophone	49.99
QZ/50 Active noise reduction stereophone	49.99
QZ/99 Noise reduction stereoph w/mono sw	59.99
QZ/2000 Active noise reduction stereophone	149.99
Y-88 Dual stereophone Y-adapter	4.99

KURANISHI (KUR)

BR-200 1.7-180MHz SWR/antenna analyzer	$389.99

LDG (LDG)

MP-Head Remote head; AT-11MP .....D	$ 29.99
MP-AL-Cable Ali interface cable; AT-11MP .D	9.99
MP-IC-Cable Icom interface cbl; AT-11MP .D	9.99
AT-100Pro 160-6m 5-125w/50w 6m auto tuner	199.99
AC-1 Power & control interface	8.99
AL-IC1 Alinco 10' interface cable	20.99
Icom-IC1 Icom 10' interface cable	20.99
Icom-IC2 Icom 8" interface cable	8.99
K-OTT Kenwood one-touch tune interface	59.99
RBA-1 Remote 4:1 balun; long/random/end fed	30.99
RBA-1:1 Remote 1:1 balun	30.99
Y-OTT FT100/817/57/97 1-touch tune interface	59.99
AT-1000 1000w PEP HF/100w 6m auto tuner	549.99
RC-1000 Remote control for AT-1000	99.99
AT-897 Bolt-on auto tuner for Yaesu FT-897	199.99
RBA-1 Remote 4:1 balun; long/random/end fed	30.99
RBA-1:1 Remote 1:1 balun	30.99
MAC-600 Motorized antenna controller	139.99
AC-1 Power & control interface	8.99
AL-IC1 Alinco 10' interface cable	20.99
Icom-IC1 Icom 10' interface cable	20.99
Icom-IC2 Icom 8" interface cable	8.99
K-OTT Kenwood one-touch tune interface	59.99
Y-OTT FT100/817/57/97 1-touch tune interface	59.99
RT-11 160-6m .1-125w/50w 6m rem auto tuner	199.99
AL-IC1 Alinco 10' interface cable	20.99
Icom-IC1 Icom 10' interface cable	20.99

LDG - continued

	AES Price
Icom-IC2 Icom 8" interface cable	8.99
K-OTT Kenwood one-touch tune interface	59.99
RBA-1 Remote 4:1 balun; long/random/end fed	30.99
RBA-1:1 Remote 1:1 balun	30.99
RT-Remote RT remote head	39.99
AC-1 Power & control interface; RT-Remote	8.99
Z-11 160-10m .1-30w QRP auto ant tuner .D	149.99
RBA-1 Remote 4:1 balun; long/random/end fed	30.99
RBA-1:1 Remote 1:1 balun	30.99
Z-100 160-6m .1 to 125w/50w 6m auto tuner	149.99
AL-IC1 Alinco 10' interface cable	20.99
Icom-IC1 Icom 10' interface cable	20.99
Icom-IC2 Icom 8" interface cbl (use AC-1 also)	8.99
AC-1 Power & control interface	8.99
K-OTT Kenwood one-touch tune interface	59.99
RBA-1 Remote 4:1 balun; long/random/end fed	30.99
RBA-1:1 Remote 1:1 balun	30.99
Y-OTT FT100/817/57/97 1-touch tune interface	59.99

LA CROSSE (LAC)

WS-2010 Professional wireless weather stn	$389.99
WS-2010-13 PC interface/software	129.99
WS-2310 Wireless/wired weather center	249.99
WS-7013U Wireless temperature station	24.99
WS-7038UF Wireless rain gauge	59.99
WS-7075UF Wireless forecast station	59.99
WS-8017U-Oak Atomic clock w/in/out temp	39.99
WS-8025AL Dlx sun/moon wireless WX station	159.99
WS-9016U Sun/moon wireless weather stn	79.99
WT-5431 Projection alarm w/remote temp	49.99
TX-3U Extra temp sensor w/LCD; all WX units	15.99
3362U Power cost controller	29.99
IR-101 Infra-red thermometer	49.99
RS-204U Remote control outlet	29.99

LAKEVIEW (LAK)

9175 75m 7' Hamstick antenna	$ 24.99
9140 40m 7' Hamstick antenna	24.99
9130 30m 7' Hamstick antenna	24.99
9120 20m 7' Hamstick antenna	24.99
9117 17m 7' Hamstick antenna	24.99
9115 15m 7' Hamstick antenna	24.99
9112 12m 7' Hamstick antenna	24.99
9110 10m 7' Hamstick antenna	24.99
9106 6m 4.5' Hamstick antenna	24.99
901 Dipole mount for 2 Hamsticks	14.99
IM-1 Inducti-match for 75-12m mobile ant	17.99
TM-1 License plate mount, ¾-24	44.99
TM-1-Plus License plate mount, SO-239 ...Δ	34.99

LARSEN (LAR)

27-31 MHz ANTENNA

NMO-27B 10m black ant only (no mount)	$ 36.99
NMO-27C 10m ant only (no mount)	32.99

47-54 MHz ANTENNA

NMO-50B 6m black ant only (no mount)	$ 36.99
NMO-50C 6m ant only (no mount)	32.99

144-174 MHz ANTENNAS

NMO-150B 2m black ant only (no mt), 3 db	$ 33.99
NMO-150C 2m ant only (no mount), 3 db	30.99

220-265 MHz ANTENNAS

NMO-220B 220 black ant only (no mt), 3 db	$ 36.99
NMO-220C 220 ant only (no mount), 3 db	30.99

440-460 MHz ANTENNAS

NMO-440B 440 black ant only (no mt), 4.5db	$ 35.99
NMO-440C 440 ant only (no mount), 4.5 db	29.99
MM-2/70PL 2m/440 ¼ wave/2db mag mt ant	50.99
NMO-2/70B 2m/440 blk ant only (no mt), 2/4db	65.99
NMO-2/70C 2m/440 ant (no mount), 2/4db	60.99
NMO-2/70-SH 2m/440 ant (no mt), ¼ wv/2db	40.99
NMOQ-Spec 136-512 MHz ¼ wave ant (no mt)	13.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Larsen - continued

	AES Price
NMOQ-Spec-B 136-512 black ¼ wv ant (no mt)	15.99
NMOQ-Spec-K 136-512MHz ¼ wv ¾" hole ant	28.99
NMOQ-2/70-B 2m/440 ¼ wv cell look ant (no mt) ..	36.99
GPS-NMO02 GPS NMO mount ant (no mt)	69.99
NMO-150450800 3-band scanner ant (no mt)	29.99

ON GLASS ANTENNAS

KG-144-UD-PL 2m 3 db on glass antenna ...	$ 83.99
KG-220-UD-PL 220 3 db on glass antenna ..	83.99
KG-440-UD-PL 440 2.4 db on glass antenna	71.99
KG-2/70-CX-PL 2m/440 2.5/4.5db on glass .	116.99
KG-Reinstall Reinstall kit for KG-ants	8.99

KULDUCKIES - For Hand-helds

KD4-2/70 2m/440 BNC Kulduckie	$ 36.99
KD4-222 220 BNC Kulduckie .....Δ	14.99
KD14-445 440 ¼ wave BNC Kulduckie	19.99
KD4-146-HQ 2m part helical, part ¼ wave BNC	25.99
KD14-2M-HW 2m ½ wave BNC antenna	38.99
KD14-440-HW 440 ½ wave BNC antenna ...Δ	19.99

ACCESSORIES

BSA-K Base mtg kit; NMO/UHF mt mobile ant	$ 53.99
NMO-B38 NMO mt hdw/A-7 NLA adapter	13.99
NMO-CAP-B Black rain cap for NMO mount ..	4.99
NMO-K ¾" hole mt w/coax for NMO ant	15.99
NMO-MM Magnet mt, coax for NMO ant	32.99
NMO-TLP Low profile tnk lid mt, coax; NMO ant	29.99
PO-K Roof mt, coax for SO-239 ant	30.99
PO-MM Magnet mt, coax for SO-239 ant	36.99
PO-TLM Trunk lip mt, coax for SO-239 ant .D	12.99
RG-SS Extra super seal NMO gaskets (3)	5.99
SPRING Shock spring	10.99
TMB-34 Trunk mtg bkt for NMO antenna	5.99
TMB-34B Black trunk mtg bkt for NMO ant ..	7.99
W-2/70B 2m/440 black replacement whip ...	27.99
W-490 49" replacement whip	8.99
W-490B Black 49" replacement whip	12.99

LIGHTWAVE (LIG)

LW-HT 4 LED/3 AA-cell illuminator head torch	$ 39.99
LW-PB 1 LED/2 lith-cell pocket flashlight	19.99
LW-2000 4 LED/3 AA-cell flashlight	29.99
LW-3000 7 LED/3 C-cell flashlight	49.99
LW-4000 10 LED/3 D-cell flashlight	59.99

LOGSAT (LOG)

Logsat Professional Satellite tracking CDROM	$ 69.99

LOSI (LOS)

A0014 XXX-4 4WD electric Competition buggy kit	$269.99
A0090 XXX-T Sport RTR w/XR2i electric car ..	269.99

M² (MSQ)

KT-36XA 20/15/10m 6el 32' boom beam.....	1299.99
40M-1LDX 6.9-10 MHz rotatable dipole.....	499.99
20M-4DX 20m 7.4db 4el 34' boom beam	599.99
17M-3DX 17m 6.3db 3el 18' boom beam ...Δ	399.99
17M-5DX 17m 8.6db 5el 36' boom beam ...Δ	499.99
15M-4DX 15m 8.5db 4el 33' 8" boom beam .	499.99
12M-4DX 12m 8.6db 4el 27' boom beam ...Δ	399.99
10M-4DX 10m 8.7db 4el 23' boom beam	449.99
6M-3 6m 50-50.6 or 51-54 6.4db 3el 6'9" bm beam	149.99
6M-5X 6m 50-50.5 or 51-54 9.4db 5el 18' bm beam	249.99
6M-7JHV 6m 50-50.4 10.9db 7el 30'8"bm beam	299.99
6M-2WLC 6m 49.7-50.5 11.9db 9el 39' 6" boom T*	499.99

***6M-2WLC is drop-shipped (shipped direct to you from the M² factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Fresno, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.**

M² - continued

	AES Price
6M-9KHW 6m 50-50.4 12.7db 9el 49' 4" bm beam Δ	499.99
6M-HO-LOOP 6m 50-50.3 4.4db horiz loop ant	113.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
MAST BKT KIT For 6M-HO-LOOP .....D	14.99
Mast/Top Bkt Mast & top bracket; HO stack	19.99
2M-4 2m 7.5db 4el 4' boom beam	113.99
2M-7 2m 10.3db 7el 8'10" boom beam	127.99
2M-9FM 2m 145-148 12db 9el 14' 6" bm beam	149.99
2M-9SSB 2m 144-146 12db 9el 14' 6" bm beam	149.99
2M-12 2m 12.8db 12el 19'6" boom beam	199.99
2M-5WL 2m 14.8db 17el 33' boom beam	249.99
2M-18XXX 2m 144-146 15.3db 18el 36'3" bm beam	289.99
2M-8WLHD 2m 144-144.7 17db 21el 55' bm beam	599.99
2M-CP14 2m 10.3db 7h/7v 10'6"bm circ beam	215.99
2M-CP22 2m 12.5db 11h/11v 18'6"bm circ beam	289.99
PS-2M 2m polarity switch; circ pol beam ..	169.99
FG X-Boom Kit For circular antennas, etc.	159.99
2M-XP20 144-146 13.3db 10h/10v cross polar Δ	169.99
2M5-440XP 2m/440 9/12db 5/10el 5'8" bm beam	199.99
2M-HO-LOOP 2m 144-144.5 4.86db horiz loop	49.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
Big-Foot 4x-mag mt; 2M-HO-LOOP stack/etc	119.99
MAG-KIT Magnet mt kit; single 2m-HO-LOOP	24.99
MAST BKT KIT For 2M-HO-LOOP .....D	14.99
Mast/Top Bkt Mast & top bracket; HO stack	19.99
STACK-KIT Stack kit for 2 2m-HO-LOOP's	74.99
TOP BKT KIT For 2M-HO-LOOP .....D	19.99
EB-144/RK-2M 2m Eggbeater w/reflector kit	199.99
222-7EZ 220 9.8db 7el 5' 8" boom beam	109.99
222-10EZ 220 12db 10el 9' 9" boom beam ..	125.99
222-5WL 220 15.2db 15el 23'3" boom beam	199.99
222-7WL 220 16.4db 23el 32'5" boom beam	249.99
222-XP30 220 15.2db 15h/15v cross polar Δ	169.99
222-HO-LOOP 220-224 4.75db horiz loop ant ..	49.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
MAG-KIT Magnet mt kit; single 222-HO-LOOP	24.99
Mast/Top Bkt Mast & top bracket; HO stack	19.99
440-470-5W 440-470 7.8db 5el 2'2"bm beam	149.99
420-50-11 432 11.3db 11el 5' bm rear mt beam	109.99
440-18 432 14.5db 18el 11'4" boom beam ..	149.99
440-21ATV 432 15.9db 21el 14'6" bm ATV beam	169.99
436-CP30 432 14.5db 15h/15v 9'9"bm circ beam	289.99
436-CP42UG 432 16.8db 21h/21v 18'10"bm circ	329.99
PS-70CM 432 polarity switch; circ pol beam	169.99
FG X-Boom Kit For circular antennas, etc.	159.99
432-9WL 432 17.3db 28el 21' boom beam ...	199.99
432-13WLA 432 18.6db 38el 30'8" bm beam	269.99
432-HO-LOOP 430-436 5db horiz loop ant ...	49.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
Big-Foot 4x-mag mt; 432-HO-LOOP stack/etc	119.99
MAG-KIT Mag mt kit; single 432-HO-LOOP	24.99
Mast/Top Bkt Mast & top bracket; HO stack	19.99
STACK-KIT-70CM Stack kit; 2 432-HO-LOOP's	74.99
TOP BKT KIT For 432-HO-LOOP .....D	19.99
EB-432 432 Eggbeater omni/hor/rhc overhead D	119.99

M² - continued

	AES Price
EB-432/RK-70CM 432 Eggbeater w/reflector kit	189.99
902-6W 900MHz 10db 6el 2' boom beam ..Δ	59.99
902-10EZ 900MHz 12.6db 10el 3'5"bm beam Δ	79.99
902-18EZ 900MHz 14.8db 18el 5'4"bm beam	159.99
23CM-22EZA 1.2GHz 16db 22el 5'2" bm beam	149.99
23CM-35 1.2GHz 18.4db 35el 10' bm beam ..	189.99
2M-2-Port-PD 2m 2-port type N power divider	69.99
70CM-2-Port-PD 432 2-port N power divider	69.99
23CM-2-Port-PD 1.2GHz 2-port N power divider	69.99
FAST MAST 20' extended port alum mast ...D	129.99
OR-2800PDC 35 sq ft azimuth rotor/control/8-wire	1399.99
RC-2800PP Control box; prop pitch .spec order	549.99

MFJ (MFJ)

ANTENNA TUNERS

989C Dlx 1.2kw PEP w/roller inductor	$319.99
986 1.2kw PEP w/roller inductor	299.99
962D 1.5kw PEP/meter/switch/balun/roller ind	249.99
969 HF & 6m 300w roller inductor tuner	189.99
949E 300w/PEP meter/dummy/switch/balun	139.99
948 300w/meter/switch/balun	119.99
941E 300w tuner w/meter, switch, balun	109.99
945E 300w tuner w/meter plus 6m	99.99
20 Mobile bracket for 945E	4.99
901B Versa Tuner 200w ant tuner	79.99
910 80-10m mobile antenna matcher	19.99
1601D 200w random wire tuner	49.99
974 3.5-54MHz balanced line ant tuner	169.99
974H 1.8-54MHz balanced line ant tuner	189.99
991 150w automatic antenna tuner	199.99
993 300w deluxe automatic antenna tuner ..	239.99
994 600w automatic antenna tuner	329.99
5124A Alinco interface cable; auto tuners	15.99
5124I Icom interface cable; auto tuners	15.99
902 80-10m 150w travel tuner	79.99
903 6m antenna tuner	49.99
906 6m antenna tuner w/wattmeter	79.99
914 Auto tuner extender	59.99
921 2m/220 300w PEP tuner/SWR/wattmeter	69.99
922 2m/440 150w tuner/SWR/wattmeter	79.99
924 440 MHz 300w PEP tuner/SWR/wattmeter	69.99
934 300w tuner w/artificial ground	169.99

MEMORY KEYERS

451 Dedicated CW keyboard w/memory	$ 99.99
452 CW keyboard/keyer w/disp/keyboard	129.99
452X CW keyboard/keyer w/disp, no keyboard	99.99
498 Dlx CW keyboard/keyer w/disp/keyboard D	169.99
490 492 keyer/Bencher paddle combo	189.99
490X 492 keyer for use w/Bencher or 564	99.99
564 Deluxe iambic paddle for 490X	49.99
492 192 char menu driven memory keyer	89.99
495 Millennium memory keyer	149.99
493 32K char menu driven memory keyer ...D	129.99
5409 9-pin serial port 6' cable for 493 ...Δ	2.99
5425 25-pin serial port 6' cable for 493 .Δ	4.99

ELECTRONIC KEYERS

407D Deluxe electronic keyer	$ 69.99
401D Econo keyer	49.99

KEYER/PADDLES

422D Keyer/Bencher paddle combination	$159.99
422DX Keyer only	79.99
441 SlimLine econo keyer	59.99
442 SlimLine keyer/Bencher paddle combo ...	149.99
442X SlimLine keyer only .....Δ	49.99
447 SlimLine deluxe keyer	79.99
564 Deluxe iambic chrome paddle	49.99
564B Deluxe iambic black paddle	49.99

COMPUTER INTERFACES

1224 Interface	$ 99.99
1285 Software for IBM; 1224	19.99

MFJ - continued

		AES Price
1270C	Packet radio TNC2	159.99
1278B	Multi-mode controller w/Pactor	279.99
1278B/DSP	Controller w/Pactor & DSP	359.99
48	1278 upgrade	24.99
52	TNC2 deviation meter board .....Δ	14.99
780	DSP data filter for 1278B .....Δ	49.99
1284D	1284 disk only .....D	.29
1284M	3½" IBM starter pack .....Δ	19.99
1284W	MFJCOM for Windows	29.99
1287D	1287 disk only .....D	.09
1289M	3½" multicom software for IBM ...Δ	49.99
1289W	Multicom for Windows with cable ..	59.99
1289WD	Multicom for Windows, less cable	49.99
1214PC	Multimode interface for IBM	139.99
781	DSP filter for any TNC or controller .....Δ	69.99
1272B	TNC to microphone interface	39.99
1272BYH	TNC/mic switch; KAM HF	39.99
1272BYV	TNC/mic switch; KAM VHF	39.99
1272M	TNC/mic RJ-45 switch; MFJ/PK-900 ..	39.99
1272MYV	TNC/mic RJ-45 sw; KAM VHF; KPC3	39.99

SSB/CW FILTERS

722	SSB/CW notch filter .....Δ	$ 49.99
751B	Super tunable CW audio filter	69.99
752C	Dual tunable SSB/CW filter	89.99
784B	Deluxe tuneable DSP filter	229.99
5184	Cable pack for 784B	7.99

PHONE PATCH

624D	Phone patch w/audio VU meter	$119.99

DUMMY LOADS

250	2kw PEP dummy load w/oil	$ 59.99
250X	2kw PEP dummy load, less oil	39.99
21	1 gal industrial xfmr oil for wet dummy	24.99
260C	300w 0-650 MHz dry dummy load	34.99
260CN	300w 0-650 MHz type N dry dummy ..	39.99
264	1.5kw 0-650 MHz dry dummy load	69.99
264N	1.5kw 0-650 MHz type N dry dummy ...	74.99
267	1.8-54 100w dry dummy load/SWR/wattmeter	139.99

SWR/WATTMETERS

812B	144-220 MHz SWR/FS/wattmeter	$ 34.99
815B	160-6m cross-needle SWR/wattmeter ..	79.99
816	1.8-30 MHz toroidal SWR/wattmeter	34.99
817	2m/440 cross needle meter	89.99
841	2m 5w in-line HT wattmeter/SWR	39.99
844	Compact 2m/440 SWR/wattmeter	69.99
860	1.8-60 MHz cross-needle meter	44.99
862	2m/220/440 cross-needle meter	54.99
864	1.8-60MHz/2m/440 cross needle meter .	84.99
870	1.6-60MHz Grandmaster SWR/wattmeter	124.99
872	1.8-200MHz Grandmaster SWR/wattmeter	94.99
873	125-525MHz Grandmaster SWR/wattmeter	104.99
874	1.8-525MHz Grandmaster SWR/wattmeter .	159.99

SHORTWAVE ACCESSORIES

306	Car radio SWL converter	$ 89.99
956	LW/MW/SW preselector/tuner	49.99
959C	SW receiver ant tuner w/preamp	99.99
1020C	.3-30 MHz indoor active receive ant ..	79.99
1022	300KHz-200MHz active rcv antenna	49.99
1024	.05-30 MHz outdoor active rcv ant	129.99
1040B	Deluxe receiver preselector	99.99
1045C	Receiver preselector	69.99

BOOKS

30	Golden Classics book	$ 9.95
32	Packet Made Easy book	9.95
33	Mobile Handbook book	12.95
36	Shortwave Listeners Guide; Apts/Condos .	9.95
37	Ham Communications Circuit Files book .	9.95
38	Easy-up Antennas book	16.95
3036	The Packet Radio Operators book	12.95
3101	Fox Hunt Adventure book	7.95
3211	Technician license guide	9.95

MFJ - continued

		AES Price
3213	General license guide	9.95
3301	Troubleshooting Antenna & Feedlines book	12.95
3302	73 Dipole and Long-Wire Antennas	12.95
3303	73 Vertical, Beam, and Triangle Ants	12.95
3305	Antennas & Transmission Lines book	19.95
3400	Morse Code: Breaking the Barrier	19.95
3502	Solid State QRP Projects	12.95
3504	FET Principles, Experiments & Projects	16.95
3506	Ferromagnetic-Core Design book	19.95
3507	Practical RF Design Manual	19.95
3508	Radio Components Handbook .....D	9.99
3509	Ladder Crystal Filters	19.95

CLOCKS

105C	24-hour quartz wall clock	$ 19.99
107B	24-hour digital clock	9.99
108B	24/12-hour dual disp digital clock	19.99
112B	Deluxe world map clock	24.99
113	24/12-hr 1.8" LED clock/batt back-up	19.99
115	DX'er 24-hour analog world wall clock ..	24.99
116DC	12-hour 12vdc LED clock .....Δ	9.99
118	Giant 24/12 hour LCD clock	24.99
123	Eternity solar atomic clock	79.99
125	Calendar 24-hour analog wall clock	29.99

ANTENNAS

343	1⅛" hole mount for 3/8-24 whip	$ 9.99
1402	2m/440 0/3db 16.5" 100w ant only	34.99
1412	2m/440 3/5.5db 40" 200w ant only	49.99
1422	2m/440 3.2/5.7db 41.5" 150w ant only	49.99
1432	2m/440 5/7.6db 62.5" 150w ant only ..	69.99
1436	6m/2m/440 2.15/4.5/7.2db 59" ant only	79.99
333BM	3.5" HiFlux NMO mag mt; not 1436	14.99
333BS	3.5" HiFlux SO-239 magt mt not 1436	14.99
335BM	5" HiFlux NMO mag mt; not 1436 ..	19.99
335BS	5" HiFlux SO-239 mag mt; not 1436	19.99
340	Mirror/luggage pipe clamp mount	34.99
345	Trunk/hatchback lip mount SO-239 mt	34.99
1516	2m 15' vertical base antenna	89.99
1621	40-10m 54" portable ant w/tuner	89.99
1622	40-2m apartment antenna	89.99
1624	40-6m mini bugcatcher antenna	79.99
1661	40-2m portable manual screwdriver ant	109.99
1664	80-6m portable manual screwdriver ant	139.99
1710	2m ⅜ wave telescopic antenna	9.99
1712	2m/440 telescopic antenna	14.99
1713	2m/440 SuperFlex Thin Duk HT ant	19.99
1713S	2m/440 SuperFlex SMA Thin Duk ant .	19.99
1714	2m ½ wave telescopic antenna	16.99
1715	2m/440 SuperFlex gain Thin Duk HT ant	24.99
1715S	2m/440 SuperFlex gain SMA Thin Duk	24.99
1716	2m/440 duck for HT	16.99
1716S	2m/440 SMA duck for HT	16.99
1717	2m/2.15db 440 duck for HT	21.99
1717PL	2m/440 foldover flexi-duck, PL-259 .	24.99
1717S	2m/2.15db 440 SMA duck for HT	21.99
1719	2m/440/1.2GHz Midget Duck	19.99
1719S	2m/440/1.2GHz SMA Midget Duck	19.99
1720S	6m/2m/440 SMA Duck	29.99
1721	2m HT UltraLite mag mt antenna	14.99
1722	2m/440 HT UltraLite mag mt antenna .	18.99
1724B	2m/440 magnet mt antenna	16.99
1727	10m magnet mt antenna .....D	29.99
1728B	6m ¼ wv/2m ⅝ wv mag ant/PL259/BNC	29.99
1729	2m/440 magnet mt antenna	34.99
1730	2m pocket roll-up vertical antenna	19.99
1734	2m/440 2.6/6.3db glass mt antenna	39.99
1736	6m J-Pole travel antenna	29.99
1738	2m 2.6db glass mt antenna	29.99
94	Remount kit for 1734/1738	4.99
1740	2m ¼ wave ground plane ant	19.99
1750	2m ⅜ wave ground plane ant	24.99
1752	220 ⅝ wave ground plane ant	24.99

MFJ - continued

		AES Price
1754	2m/440 ground plane antenna	29.99
1756	6m DX vertical antenna .....Δ	59.99
1762	6m 6db 3 el 6' boom beam	79.99
1763	2m 3el portable beam	44.99
1764	2 & 6m dual ⅝ super gain base ant	49.99
1768	2m/440 4/7 el beam antenna	79.99
1778	G5RV 160-10m 102' ant (needs tuner)	39.99
1786	Super Hi-Q 10-30 MHz loop/dlx control	349.99
1788	Super Hi-Q 40-15m loop/dlx controller	389.99
1796	40/20/15/10/6/2m 10' vertical ant	189.99
1798	80/40/30/20/17/15/12/10/6/2m 20' vert	269.99
1899T	80-6m telescopic antenna for FT-817	129.99
1910	33' telescoping fiberglass mast	79.99

CABLES

5020	MFJ TNC - Yae FT50R/compat	$ 15.99
5020YV	KAM VHF/KPC3 - Yae FT50R/compat	15.99
5022	MFJ TNC - Alinco/Standard HT cable .Δ	12.99
5022YV	KAM VHF/KPC3 - Ali/Sta HT cable	15.99
5024	MFJ TNC - Ico/Yae/Ali/RS HT cable	15.99
5024B	PK/PacComm/compat - Ico/Yae/RS	15.99
5024YV	KAM VHF/KPC3 - Ico/Yae/Ali/RS HT	15.99
5026	MFJ TNC - Kenwood HT cable	15.99
5026YV	KAM VHF/KPC3 - Kenwood HT cable ..	15.99
5060	MFJ TNC - Ken/Yae acc 6-pin mini DIN	19.99
5060YQ	KPC9612 - Ken/Yae acc 6pin mini DIN	19.99
5060YV	KAM VHF/KPC3 - Ke/Ya acc 6pin mni DIN	19.99
5063	MFJ TNC - Icom HF acc 8-pin DIN	19.99
5063YH	KAM DIN HF - Icom HF acc 8-pin DIN	19.99
5064	MFJ TNC - Icom VHF acc 8-pin DIN	19.99
5064YQ	KPC9612 - Icom VHF 8-pin DIN .....Δ	.99
5065	MFJ TNC - Ico IC-706 acc 13-pin DIN	19.99
5065YH	KAM HF - Ico IC-706 acc 13-pin DIN	19.99
5065YV	KAM VHF - Ico IC706 acc 13-pin DIN	19.99
5066	MFJ TNC - Kenwood HF acc 13-pin DIN	19.99
5066YH	KAM HF - Ken HF acc 13-pin DIN	19.99
5080	MFJ TNC - Yaesu 8-pin cable	15.99
5080M	MFJ TNC - Yaesu 8-pin modular	15.99
5080MYV	KAM VHF/KPC3 - Yae 2500M/7400H	15.99
5080YH	KAM HF port - Yaesu 8-pin cable	15.99
5080YV	KAM VHF/KPC3 - Yaesu 8-pin cable ..	15.99
5082	Open end - 8-pin mic cable	9.99
5084	MFJ TNC - Icom 8-pin cable	15.99
5084M	MFJ TNC - Icom 8-pin modular	15.99
5084MYV	KAM VHF/KPC3 - Icom 8-pin mod ..	15.99
5084YH	KAM HF port - Icom 8-pin cable	15.99
5084YV	KAM VHF/KPC3 - Icom 8-pin cable ...	15.99
5086	MFJ TNC - Kenwood/Alinco 8-pin cable	15.99
5086M	MFJ TNC - Kenwood 8-pin modular	15.99
5086MYV	KAM VHF/KPC3 - Ken 8-pin mod	15.99
5086YH	KAM HF port - Ken/Ali 8-pin cable	15.99
5086YV	KAM VHF/KPC3 - Ken/Ali 8-pin cable	15.99
5088M	MFJ TNC - Radio Shack 8-pin modular	15.99
5205	5-pin DIN open end cable	4.99
5208	Open end - Ico HF/VHF acc 8-pin DIN ..	9.99
5213	Open end - Kenwood acc 13-pin DIN	9.99
5220R/5220	Open end - Yae FT50R/compat ..	9.99
5222	Open end - Ali split HT cable	9.99
5224	Open end - Ico/Yae/Ali/RS HT cable	9.99
5268	Open end - modular phone plug cable .	9.99
5412	IBM printer cable	9.99
5413	RS-232 6' cable DB-25M-25F .....Δ	.99
5414	RS-232 6' cable DB-25M-9F	9.99
5803/10	3' coax jumper cable	5.99

RADIOS/TRANSCEIVERS

8100K	Shortwave regenerative Rcvr kit	$ 69.99
8100W	Shortwave regenerative Rcvr wired	89.99
9606X	10w 6m FM/data Xcvr/mic/52.525MHz Δ	139.99
8621	5w 2m data radio w/145.01 MHz	139.99
8621X2	5w APRS ready 2m data radio/144.39 .	149.99
4110	Portable AC power supply	49.99
5100	Data radio cable - MFJ/TAPR	15.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ - continued

AES Price

5100YH Data radio cable - KPC-9612 .....Δ .99
5100YV Data radio cable - KAM/KPC-3 ..... 15.99
5106 Open end - 6pin mini Ken/Yae cable 4.99
8708 4ch ham micro ATV transmitter 149.99
9015 5w 15m CW Xcvr 169.99
9020 5w 20m CW Xcvr 169.99
9030 5w 30m CW Xcvr 169.99
9040 5w 40m CW Xcvr 169.99
27 Handle for CW station 4.99
412 Plug-in Curtis keyer 49.99
726 Plug-in audio filter 29.99
971 200w portable ant tuner w/meter 99.99
1772 Portable 20m dipole 39.99
1774 Portable 40m dipole 39.99
4110 Portable AC power supply 49.99
4114 Rechargeable power pack 69.99
9130B 9030 Xcvr/tuner/ps/ant package .....Δ 229.99
9140B 9040 Xcvr/tuner/ps/ant package ....Δ 249.99
9402X 7w PEP 2m SSB Xcvr w/mic 269.99
9406X 10w PEP 6m SSB Xcvr w/mic 249.99
9410X 20w PEP 10m SSB Xcvr w/mic 239.99
9420X 12w 20m SSB Xcvr w/mic 229.99
9440X 12w 40m SSB Xcvr w/mic 229.99
9475X 12w 75m SSB Xcvr w/mic 229.99
415B SSB Xcvr CW adapter; 9420X/9440X 49.99
416 CW adapter for 9402X/9406X/9410X .. 49.99
971 200w HF portable ant tuner w/meter .. 99.99
1770A 10m dipole for 9410X 39.99
4110 Portable AC power supply 49.99
4114 Rechargeable power pack 69.99

ACCESSORIES

1305 5v 300ma adapter .....D $ 2.99
1306 6v 300ma adapter .....Δ 12.99
1312 12vdc 300ma adapter, 2.5mm plug 14.99
1312D 12vdc 500ma adapter, 2.1mm plug .. 14.99
1316 12vdc 1.5A adapter 19.99
10-BCI-2 Charger cup; Icom BP-131/132 ...Δ .29
10-BCI-3 Charger cup; Icom BP-173/180 ..Δ .29
10-BCY-2 Cgr cup;Yae FNB10/11/12/17/27 ...Δ .29
15 HamGear belt loop radio holder 14.99
18 HamGear chest harness/cargo pocket 29.99
92AA01 1300ma AA NiMH cell .....each 2.99
92AA10 10-pack 1300ma AA NiMH cells 24.99
201 1.5-250 MHz dip meter 109.99
202B RF noise bridge 59.99
204B HF Antenna bridge 79.99
206 Antenna current probe .....D 19.99
207 160-10m SWR analyzer 79.99
208 2m SWR analyzer 79.99
209 1.8-170 MHz SWR analyzer 129.99
212 MatchMaker tune up device 79.99
219B SWR analyzer, 440 MHz/N/SO-239 adapt 89.99
224 2m FM signal analyzer 149.99
249B 1.8-170 MHz SWR analy/LCD counter .. 219.99
259B 1.8-170 MHz SWR analy/RF res meter . 239.99
269 1.8-170+440 MHz SWR analy/RF res mtr 319.99
29C Carrying case w/window; 209/249B/259B 24.99
39C Carrying case w/window; 269 ..... 24.99
66 1.8-30/30-170 dip coils; 209/249B/259B 19.99
92AA10 10-pack 1300ma AA NiMH cells ... 24.99
98 Package of 39C/66/1312D for 269 ..... 54.99
98B Pack of 92AA10/39C/66/1312D for 269 77.99
99 Pack of 29C/66/1312D; 209/249B/259B 54.99
99B Pack; 92AA10/29C/66/1312D; 209/249B/259B 77.99
99C Pack - 92AA10/1312D; 209/249B/259B/269 34.99
731 RFI filter for SWR analyzer 89.99
1312D 12vdc 500ma ps for SWR analyzers 14.99
270 Guardian Angel 400w PEP lightning protect 29.99
97 Gas tube plug for 270 ..... 9.99
281 ClearTone communications speaker 12.99
288I Headset/mic; Icom/ADI/Sta/RS/older Yae 24.99

MFJ - continued

AES Price

288K Headset/mic for Kenwood 24.99
288Y Headset/mic; Ico Q7/Yae FT10/50/VX1 . 24.99
292I Earph/mic; Ico/older Yae/compatibles .. 17.99
292Y Earphone/mic; Ico Q7/Yae FT10/50/VX1 17.99
293I Rubber flex earloop earbud/mic; Icom .. 24.99
293K Rubber flex earloop earbud/mic; Kenwood 24.99
293Y Rubber flex earloop earbud/mic; Yaesu 24.99
295I Mini spkr/mic; Icom & compatible HT ... 15.99
295K Mini spkr/mic; Kenwood & compatible HT 15.99
295Y Mini spkr/mic; Ico Q7/Yae FT10/50/VX1 15.99
297 Desk mic with flexible boom 69.99
5082 Open end - 8-pin mic cable for 297 . 9.99
5268 Open end - mod phone plug cbl; 297 9.99
5397I Cable/8-pin for 297; Icom HF 15.99
5397K Cable/8-pin for 297; Kenwood HF ... 15.99
5397Y Cable/8-pin for 297; Yaesu HF 15.99
5397MX Cable/modular for 297; Icom/Kenwood 15.99
5397MY Cable/modular for 297; Yaesu 15.99
310 BNC HT antenna window mount clip 14.99
341M 17' antenna cable; NMO 19.99
341S 17' antenna cable; SO-239 ..... 19.99
382 Deluxe amplified communications spkr . 39.99
384 Dlx amp spkr w/speech control knob ...D 29.99
1306 6v 300ma adapter for 384 only 14.99
388 Cyber Ear 12db ear amplifier 29.99
392B Deluxe communication headphones 19.99
394 Boom mic/single headphone .....D 29.99
5396I Adapter; 394/396 with Ico Xcvr .....D 2.99
5396K Adapter; 394/396 with Ken Xcvr ...D 2.99
5396Y Adapter; 394/396 with Yae Xcvr ...D 2.99
414 Professional Morse Tutor w/LCD 189.99
417 Code Tutor with QSO 59.99
418 Code Tutor with LCD display 79.99
434 Deluxe Voice Memory Keyer 169.99
73 Remote control head w/cable for 434 ... 29.99
461 Pocket size Morse code reader 79.99
5161 DB-9 PC serial port cable 14.99
5162 Cable for radio external speaker 5.99
462B RTTY/ASCII/CW/AMTOR Rcvr multi-reader 169.99
5162 Cable for radio external speaker 5.99
464 CW reader w/built-in keyer 169.99
550 Hand key 7.99
554 Deluxe CW practice oscillator 79.99
557 Code oscillator w/key 29.99
616 Speech intelligibility enhancer 159.99
1316 12vdc 1.5A adapter 19.99
281 ClearTone speaker (requires 2) 12.99
392B Deluxe communication headphones . 19.99
631 Trickle wall charger; NiMH/nicad AA ....D 9.99
632 Rapid charger; NiMH/nicad AA/AAA .....D 19.99
633 Rapid charger; NiMH/nicad AA/AAA/9V .. 24.99
641-Y3 Battery charger;Yaesu FNB-31/33 ..Δ 4.99
10-BCY-3 Charger cup; Yae FNB-31/33 ..Δ .49
662 Simplex pocket repeater 79.99
701 Toroid RFI filters .....pack of 4 14.99
704 1kw low-pass filter 49.99
711 High pass filter .....D 19.99
762 81db 170MHz BNC attenuator 69.99
801 Super compact field strength meter 19.99
802 Bipolar field strength meter 39.99
802R Field strength remote meter .....Δ 19.99
802X Field strength/remote meter combo 59.99
805 RFI current detector meter 79.99
850 AC line voltage monitor 19.99
852 Power line noise current meter 89.99
854 HF RF current meter 89.99
886 1MHz - 3GHz pocket frequency counter .. 109.99
888 Deluxe 10Hz - 3GHz frequency counter .. 174.99
890 DX beacon monitor 99.99
912 W9INN remote balun 49.99
916 2m/440 duplexer 29.99

MFJ - continued

AES Price

931 Artificial ground unit 89.99
1025 Noise canceling antenna 149.99
1026 Deluxe noise canceling unit w/antenna 169.99
1046 1.6-33MHz receiver passive preselector 89.99
1048 1.6-33MHz Xcvr passive preselector 109.99
1112 Multiple DC outlet 34.99
1116 Dlx multiple DC outlet 49.99
1117 High current multiple DC outlet 54.99
1118 Dlx high current multiple DC outlet 74.99
1213 Interface for JVFAX/HamComm .....Δ 39.99
1262 Microphone switch; 8-pin round 79.99
1268 IBM PC memory keyer .....Δ .69
1273B Basic soundcard interface/soft; 8P-R 59.99
1273BM Basic soundcard interface/soft; 8P-M 59.99
1275 Soundcard/rig interface/software; 8P-R 99.99
1275M Soundcard/rig interface/software; 8P-M 99.99
1279 Super soundcard interface/soft; 8P-R .. 129.99
1279M Super soundcard interface/soft; 8P-M 129.99
1292 Video digitizer for IBM .....Δ 2.99
1700C 6-pos combo ant/xmtr switch/protect 89.99
1701 6-position coax switch 59.99
1702C 2-pos coax switch/lightning protect .. 24.99
1702CN 2-pos 1.1GHz N switch/lightning protect 34.99
1703 2-rig/2-antenna RF safety switch 19.99
1704 4-pos 500 MHz switch/lightning protect 64.99
1704N 4-position type N switch 74.99
1925 Controller; Yaesu ATAS-100/other rigs . 59.99
1925I2 Controller; Yae ATAS-100/Ico IC-706 . 59.99
4035MV Dlx 30A adjustable ps, 35A surge ... 139.99
4103 Switching power supply for Yaesu FT-817 39.99
4125MV MightyLite 22A 3.5 lb switch ps, 25A surge 99.99
4225MV MightyLite 22A switching ps, 25A surge 139.99
4245MV MightyLite 40A switching ps, 45A surge 189.99

MG Electronics (MGE)

HFS-1 10w mobile spkr, 3.5mm plug .....D $ 9.99

MAGELLAN (MAG)

00-19060-000 Pwr/data cbl; Tracker/ColorTrak Δ $ 2.99
730275 Ext pwr cbl w/cig adapt; MAP330 .Δ 12.99
730277 PC cable/cig adaper; MAP330 .....Δ 24.99
Meridian Gold GPS with 16MB base map 249.99
Meridian Platinum GPS/16MB/compass/barometric 349.99
Meridian Color Handheld color GPS/16MB .. 399.99
980611 MapSend Topo CD-ROM 99.99
980613-01 MapSend Streets & Destinations CD .. 99.99
980654-01 MapSend DirectRoute; Gold/Plat/Col .. 149.99
SporTrak GPS receiver w/1MB memory 169.99
SporTrak Map GPS w/2MB map+4MB mem . 199.99
SporTrak Pro* GPS w/9MB map+23MB mem 269.99
*$30 rebate from Magellan thru 6/30/04!
SporTrak Color Handheld color GPS/9MB 329.99
980611 MapSend Topo CD-ROM 99.99
980613-01 MapSend Streets & Destinations CD .. 99.99
980654-01 MapSend DirectRoute; Pro/Color .. 149.99

MAHA (MAH)

9V 8.4v 170mah 9v size NiMH batt cell ....ea $ 8.99
AAA-T 1.2v 650mah AAA size NiMH batt cell ea 2.99
AA-FB 1.2v 1400mah AA NiMH batt w/tabs D,ea 2.99
4-AA-180 4pack 1.2v 1800mah AA NiMH cells Δ 12.99
4-AA-220-BH 4pack 1.2v 2200mah AA NiMH cells 18.99
MH-C124S Reg cgr; 1-4 AA/AAA NiMH/NiCD . 9.99
MH-C204F Quik cgr/condi; 2/4 AA/AAA NiMH/NiCD ... 24.99
MHS-DC-124 Cig adapter; MH-C124S/C204F † 4.99
MH-C204F8AA22 Charger/8 AA2200/car adapt 49.95
MH-C401FS4AA22 Charger/4 AA2200/car adapt 49.95
MH-BP-7 13.2v 1000mah Icom nickel hydride 69.99
MH-BP-8 8.4v 1200mah Icom nickel hydride 59.99
MH-BP-8H 8.4v 1800mah Icom nickel hydride 69.99
MH-BP-83 7.2v 1300mah Icom nickel hydride 49.99
MH-BP-132B 12v 1300mah Ico blk nick hyd/mic Δ 29.99

Maha - continued

		AES Price
MH-BP-132G	12v 1300mah Ico gray nick hyd/mic Δ	29.99
MH-BP-173	9.6v 650mah Icom nickel hydride	69.99
MH-BP-180	7.2v 1000mah Icom nickel hydride	49.99
MH-BP-196M	9.6v 1350mah Icom nick hyd Δ	39.99
MH-BP-199	6v 700mah Icom nick hyd/clip ..Δ	44.99
MH-BP-200	9.6v 680mah Icom nick hydride/clip	59.99
MH-CNB-152	12v 1000mah Sta nickel hydride	59.99
MH-CNB-153	7.2v 1300mah Sta nickel hydride	49.99
MH-FNB-12	12v 1000mah Yaesu nickel hydride	59.99
MH-FNB-17	7.2v 1000mah Yaesu nickel hydride	49.99
MH-FNB-27	12v 900mah Yaesu nickel hydride	59.99
MH-FNB-38	9.6v 650mah Yaesu nickel hydride	59.99
MH-FNB-40H	7.2v 650mah Yae nick hyd/spg clip Δ	39.99
MH-FNB-41	9.6v 1000mah Yae nick hyd/spg clip	55.99
MH-FNB-V47	7.2v 1800mah Yae nick hyd/spg clip	69.99
MH-FNB-V57	7.2v 1500mah Yae nickel hydride	49.99
MH-FNB-58LI	1200mah li-polymer; Yae VX5R	59.99
MH-FNB-72	9.6v 1700mah Yae nickel hydride .	59.99
MH-PB-8	12v 1300mah Kenwood nickel hydride	62.99
MH-PB-17	12v 1300mah Kenwood nickel hydride	69.99
MH-PB-18	7.2v 1300mah Ken nick hyd; wall cgr only	49.99
MH-PB-32	6v 1000mah Kenwood nickel hydride	47.99
MH-PB-34	9.6v 1000mah Kenwood nickel hydride	57.99
MH-PB-39	9.6v 1050 mah Ken nickel hyd/clip .	59.99
MH-PB-39H	6v 1800mah Ken nickel hyd/clip ..	59.99
MH-PB-42LI	1800mah li-polymer; Ken THF6A	69.99
MH-C777	Univ cgr/conditioner/cig cord; nicad/nimh	49.99
MHS-CW4	Clip-leads for external charging	3.99
MH-C777 Plus II	Univ cgr/analy; lith/nicd/nimh	89.99
MH-C888	Univ drop-in rapid cgr/cond; nicad/nimh	59.99
MHS-C800U	External charger pin shell ...†	2.99
MHS-C801	Cup; T2/W32/TH22/79/FT10/50	7.99
MHS-C802	Cup; IC02AT/TH78/FT470/530 Δ	7.99
MHS-C803	Cup; Kenwood TH-D7A/G71A	7.99
MHS-C804	Cup; Icom IC-T8A/T81A .....Δ	7.99
MHS-C805	Cup; Yaesu FT-11/41/51R .....Δ	7.99
MHS-C806	Cup; Ali 195/580/F1/G5/V5/etc	7.99
MHS-DC-777	Cig lighter cord	5.99
MH-101-I1	Cgr;Ico157/160/174/131/2/Mah 132B/G D	2.99
MH-101-Y1	Cgr;Yae 10/11/12/17/25/27/Mah 12/27 D	2.99
MH-101-Y2	Cgr;Yae FNB31/38/Mah MHFNB38 D	2.99
MH-800K	500mw spkr/mic w/clip; Kenwood .	19.99
MH-800S	500mw spkr/mic/clip; Ali/Ico/Sta/Yae	19.99
MH-800Y	500mw spkr/mic; Yae FT50/VX1R ..	24.99
MHS-I1	Ico 2G/02/2/32 adapt; A301/302 ...D	.99
MHS-I2	Ico 2SAT/W2 adapter; A301/302 .....D	.49
MHS-I3	Ico 2GXAT/W21AT adapt; A301/302 D	.69
MHS-I4	Ico W32/31/T7/22 adapt; A301/302 D	1.99
MHS-I5	Ico T8A/T81A adapter; A301/302 ...D	1.99
MHS-K1	Ken 25/26/75/77 adapt; A301/302 ....D	.99
MHS-K2	Ken TH22/79 adapter; A301/302 ...D	.99
MHS-K3	Ken G71A/D7A adapt; A301/302 ...D	1.99
MHS-S1	ADI/Standard adapt; A301/302 .....D	.49
MHS-Y1	Yae 23/411E/470 adapt; A301/302 D	.99
MHS-Y2	Yae 26/415/530 adapt; A301/302 D	.99
MHS-Y3	Yae FT11/41/51 adapt; A301/302 D	.69
MHS-Y4	Yae FT10/40/50 adapt; A301/302 D	.69

MALDOL (MAL)

AH-14	20m telescoping ant w/BNC; FT-817...	$ 45.99
AH-28	10m telescoping ant w/BNC; FT-817...	45.99
AH-C7	40m loading coil only w/BNC; FT-817	33.99
AH-C14	20m loading coil only w/BNC; FT-817	33.99
AH-C21	15m loading coil only w/BNC; FT-817	33.99
AH-C28	10m loading coil only w/BNC; FT-817	33.99
AH-R	Telescoping whip for AH-C7/14/21/28	17.99
AH-510R	6/2m/440 37" BNC tele whip; FT-817/HT	59.99
AH-510R/SMA	6/2m/440 37" SMA tele whip	59.99
AS-20	2m/440 8.5" superflex SMA antenna...	26.99
AS-25	2m/440 1" SMA antenna	19.99
AS-30	2m/440 15" 0/2.15db superflex SMA ant	29.99

Maldol - continued

		AES Price
AX-50	2m/440 0/5db 21" mobile antenna	49.99
AX-75	2m/440 3.2/5.7db 30" mobile ant	59.99
AX-95	2m/440 3.3/5.8db 38" mobile ant	66.99
EM-B80	Small trunk/hatch/van door lip mt ..	25.99
EX-104B	2m/440 black 0/2.15db 15" mob ...	44.99
EX-104BNMO	2m/440 blk 0/2.15db 15" NMO	44.99
EX-107RB	2m/440 black 2.6/4.9db 29" mob	56.99
EX-107RBNMO	2m/440 blk 2.6/4.9db 29" NMO	56.99
EX-510B	6m/2m/440 blk 0/2.15/5.5db 37" mob	66.99
EX-510BNMO	6m/2m/440 blk 0/2.15/5.5db 37" NMO	66.99
FVS-50	Dlx 2-step 16' 9" cable w/UHF connects	42.99
HMC-6S	20/15/10/6/2m/440 68" mobile ant	159.99
HMC-7C	40m loading coil for HMC-6S	34.99
HVU-8	80/40/20/15/10/6/2m 8.6' vert w/radials	319.99
MH-209	2m/440 3" BNC duck	23.99
MH-209SMA	2m/440 3" SMA duck	23.99
MH-510	6m/2m/440 0/0/3.2db 20.75" SMA duck	37.99
MH-511	6m/2m/440 4.25" SMA duck	33.99
MH-610	2m/220/440 0/1.8/3.2db 14" SMA duck	49.99
MK-30H	Motorized tnk lip/hatch/van door mt	109.99
MSG-1000C	2m/440 2.15/5.5db 39" mobile D	39.99
PR-212DNMO	2m/440 6/8.5db 85" NMO mob D	69.99
PRM-T	Large trunk/hatch/van door lip mt	33.99
SHG-140B	2m 4.1db 56" mobile antenna	49.99
SHG-140BNMO	2m 4.1db 56" NMO mob ant .	49.99
SHG-1500B	2m/440 blk 4.5/7.5db 59" mob D	59.99
SHG-1500BNMO	2m/440 blk 4.5/7.5db 59" NMO D	39.99

MAXON (MAX)

MX-49FX	5 ch 49 MHz ear mic Xcvr	$ 49.99
MX-49SX	49 MHz boom mic/headset Xcvr	29.99

MEADE (MEA)

0705-04-01	ETX-70AT Astro telescope w/tripod	$319.99
07027	#884 Deluxe tripod	199.99
07137	1.25" 5mm Plossl lens	59.99
07139	1.25" 18mm WA lens	49.99
07170-02	1.25" 6.4mm super Plossl lens .	89.99
07173-02	1.25" 15mm super Plossl lens ...	89.99
07220	#933 45° 1.25" erecting prism	69.99
07273	#126 1.25" 2x short-focus Barlow lens	59.99
07279	#670 dew shield	19.99
3514-03-20	ETX-90AT Astro tele/ctrlr/tripod	599.99
0515-03-20	ETX-125AT Astro tele/ctrlr/tripod	999.99
07137	1.25" 5mm Plossl lens	59.99
07139	1.25" 18mm WA lens	49.99
07170-02	1.25" 6.4mm super Plossl lens .	89.99
07173-02	1.25" 15mm super Plossl lens ...	89.99
07273	#126 1.25" 2x short-focus Barlow lens	59.99
07217	#928 45° 1.25" erecting prism; DS60/70/90 Δ	39.99
07436	#497 Autostar controller; ETX-125EC .... Δ	99.99
494	#494 Autostar controller; DS-EC-series ....D	19.99
20117	DS-2114ATS 114mm reflector telescope	399.99
20201	NGC-60 60mm refractor telescope	199.99
07137	1.25" 5mm Plossl lens	59.99
07139	1.25" 18mm WA lens	49.99
07170-02	1.25" 6.4mm super Plossl lens .	89.99
07173-02	1.25" 15mm super Plossl lens ...	89.99
07273	#126 1.25" 2x short-focus Barlow lens	59.99
07522	908B broadband nebula filter .....Δ	49.99

MIDLAND (MID)

74-200	SAME weather/hazard alert radio/ps	$ 49.99
74-210	FM/SAME weather/hazard alert radio/ps D	49.99
WR-300	AM/FM/SAME WX/hazard alert radio/ps	49.99

Miracle Antenna (MIA)

Miracle Whip	3.5-450MHz 57" QRP ant/tuner	$139.99

MIRAGE (MIR)

A-1015G	50-52 FM/SSB 10/150w amp/preamp	$349.99
B-34	2m FM 2/35w amplifier; no mob bkt	79.99
B-34G	2m FM/SSB 3.5/35w amp/preamp	99.99

Mirage - continued

		AES Price
B-310G	2m FM/SSB 4/100w amp/preamp	179.99
B-320G	2m FM/SSB 50/200w amp/preamp ..	429.99
B-1018G	2m FM/SSB 10/160w amp/preamp	369.99
B-2518G	2m FM/SSB 25/160w amp/preamp	299.99
B-2530G	2m FM/SSB 25/300w amp/preamp	689.99
B-5018G	2m FM/SSB 50/160w amp/preamp	299.99
B-5030G	2m FM/SSB 50/300w amp/preamp ..	669.99
BD-35	2m/440 4/45//4/35w HT amp	149.99
BD-38/BD-38G	2m/440 4/80w HT amp/preamp	299.99
B-24G	5/50w 2m HT dock boost amp/pre	109.99
MI-1	Ico 2G/02/2/23 adapter; B24G/BD25 D	7.99
MI-2	Ico 2SAT/W2 adapter; B24G/BD25 ..Δ	9.99
MI-3	Ico 2GXAT/W21AT adapt; B24G/BD25	9.99
MK-1	Ken 25/26/75/77 adapt; B24G/BD25 Δ	9.99
MK-2	Ken 22/79 adapter; B24G/BD25	9.99
MY-1	Yae 23/411E/470 adapt; B24G/BD25 Δ	9.99
MY-2	Yae 26/415/530 adapt; B24G/BD25 Δ	9.99
MY-3	Yae FT11/41/51 adapt; B24G/BD25 D	9.99
C-22G	220 FM/SSB 2/20w amp/preamp	154.99
C-211G	220 FM/SSB 2/110w amp/preamp	329.99
C-1012G	220 FM/SSB 10/120w amp/preamp	329.99
C-1022G	220 FM/SSB 10/220w amp/preamp	689.99
C-2512G	220 FM/SSB 25/120w amp/preamp	309.99
C-5022G	220 FM/SSB 50/200w amp/preamp Δ	369.99
D-15N	430 FM/SSB/ATV 2/15w type N amp ...	169.99
D-26N	440 FM/SSB 2/60w type N amplifier ..	259.99
D-1010N	440 FM/SSB 10/100w type N amp .	379.99
D-3010N	440 FM/SSB 30/100w type N amp .	349.99
D-1010-ATVN	430 ATV 10/100w type N amp .	399.99
RC-1*	Remote control head w/18' cable	45.99
	*Not for B-23/C-22/D-26	
RC-2	Rem ctl head/cable; B-XX18G	45.99

The following Repeater Amplifiers are Special Order. Specify SO-239 or type N connectors

A-1015NR	6m FM 2/80w type N amplifier	$549.99
A-1015R	6m FM 2/80w SO-239 amplifier	529.99
C-211NR	220 FM .5/80w type N amplifier	619.99
C-211R	220 FM .5/80w SO-239 amplifier	599.99
C-1012NR	220 FM 5/90w type N amplifier ...	619.99
C-1012R	220 FM 5/90w SO-239 amplifier	599.99
C-2512NR	220 FM 15/90w type N amplifier .	589.99
C-2512R	220 FM 15/90w SO-239 amplifier ..	569.99
D-1010NR	440 FM 4/80w type N amplifier ...	629.99
D-3010NR	440 FM 12/80w type N amplifier .	599.99
D-1010-ATVN-R	430 ATV 4/80w type N amp .	629.99

PREAMPS

KP-1/10M	10m in shack preamp .....Δ	$ 99.99
KP-1/6M	6m in shack preamp	129.99
KP-1/2M	2m in shack preamp	129.99
KP-1/220	220 in shack preamp .....Δ	99.99
KP-1/440	440 in shack preamp	129.99
KP-2/10M	10m mast mount preamp .....Δ	119.99
KP-2/6M	6m mast mount preamp	179.99
KP-2/2M	2m mast mount preamp	179.99
KP-2/220	220 mast mount preamp .....Δ	129.99
KP-2/440	440 mast mount preamp	179.99

WATTMETER

MP-3	420-450 5/50/150w PEP wattmeter .Δ	$199.99

MOTOROLA (MOT)

50226	Headset w/mic for older FRS .....Δ	$ 7.99
53834	Rosewood T5200 Alkaline FRS .....D	29.99
T-4500-2	22ch 500mw GMRS/FRS handheld .pair	29.99
T-5950-2/AA	22 ch 1w GMRS/FRS HH .....pair	79.99

NCG (NCG)

Power Pocket	12v 2AH lead acid belt batt/cgr	$ 66.99

NCS (NCS)

NCS-3230	Multi-receiver receive console	$349.99
NCS-1514	Wall power supply; NCS-3230 ...	24.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

NCS - continued

	AES Price
NCS-P2PH35-A Multi-rx/spkr out set 6 cables	42.99
NCS-MRx2MS-A 3240 & 3230 interface cbl kit	49.99
NCS-3240 Multi-switcher audio device	299.99
NCS-1512 Wall power supply; NCS-3240	12.99
NCS-LoZNC Unterminated interface cable	17.99
NCS-LoZ8PI-I Icom 8-pin interface cable	24.99
NCS-LoZRJ45-I Icom modular interface cable	23.99
NCS-LoZ8PI-K Kenwood 8-pin interface cable	24.99
NCS-LoZRJ45-K Kenwood modular interface cbl	23.99
NCS-LoZ8PI-Y Yaesu 8-pin interface cable	24.99
NCS-LoZRJ12-Y Yaesu modular interface cbl	23.99
NCS-3400 Multi-patch audio patch panel	129.99

Night Owl Optics (NOO)

NOCC-3 3.1x42 night vision scope/illuminator .D	$139.99
NOCA-42 Camera adapter	39.99
NOLD-20 Lens doubler .Δ	29.99
NONW24-BPHT 2.4x night vision/illuminator	159.99
NODS-5 5x48 night vision scope w/illuminator	249.99
NOCA-42 Camera adapter	39.99
NOXG-2 3x G2 night vision scope w/illuminator	999.99
NOCA-42 Camera adapter	39.99

NORCOMM (NOR)

NC-101 Tunable CTCSS encoder	$ 21.99
NC-104 Programmable CTCSS encoder	26.99
NC-106 Prog CTCSS encoder/decoder	62.99
NC-401 Sub-miniature DTMF decoder	62.99

Oregon Scientific (ORE)

EMR-812A Wireless thermometer	$ 29.99
THR-138 Extra wireless sensor; EMR-812A	24.99
PE-319 Pedometer with personal security	19.99
RGR-122 Wireless rain gauge w/LCD console	59.99
RM-116E Exactset radio controlled clock ....D	29.99
WMR-112A Wireless weather station	199.99
WM-918 Dlx weather station w/rain gauge	229.99
WMR-968 Dlx wireless WX stn w/rain gauge	399.99
WR-102 Port WX/hazard radio/SAME alert	49.99
WR-196T AM/FM/SAME WX alert clock radio	69.99

OUTBACKER (OUT)

OB-8 75-10m 300w PEP 6' 8-band mobile ant	$319.99
OB-8HP 75-10m 500w PEP 6' 8-band mob ant	329.99
OB-S8 75-10m 300w PEP split ant/storage bag	329.99
OB-8TRI 75-10m 300w PEP 3pc 6' port ant/bag	339.99
Joey 80-2m 20w antenna w/counterpoise	299.99
(ALP) MicroMount Tripod system for Joey	49.99
OB-M 75/40/20/17/10m/HF marine 300w PEP 6'	449.99
Perth 75-10m 150w PEP 7.5' mobile ant	329.99
Perth Plus 75-10m+6m/2m 150w PEP 6' mob ant	329.99
Stealth Plus 75-10m+6/2m 100w PEP 4' ant	319.99
Outreach 160-10m 300w PEP 12' antenna	419.99
Outreach 500 80-6m 600w PEP 12' antenna	449.99
(ALP) Outpost Base tripod mtg sys for mob ant	199.99
OB-SB ⅜-24 spring and ½" hole base	109.99
Diamond K-400-3/8C ⅜-24 trunk mt, 6' coax	69.99
Diamond C-110 10' ext cable; K-400-3/8C	14.99

PACCOMM (PAC)

Spirit-2 Std high performance controller ....Δ	$169.99

Palomar Engineers (PAL)

MSB-3 Magnetic switch receive balun .....D	$ 6.99
PT-340 Tuner-Tuner (use with ant tuner)	99.99
RFI-4 RF interference kit	25.99
VLF-A VLF converter; 10-500 KHz to 80m	99.99
VLF-S VLF conv; 10-500 KHz to 4-4.5 MHz	99.99

PALSTAR (PLS)

AT-1KM 600w T-match differential tuner/crossneedle mtr	$359.99
AT-4K 2.5kw T-match edgewound roller ind tuner	895.99
AT-1500A 1kw auto stepper motorized tuner	995.99

Palstar - continued

	AES Price
AT-1500BAL 750w dual edgewound roller ind tuner	695.99
AT-1500CV 750w T-match ceramic roller ind tuner	459.99

PAR (PAR)

OA-28 10m horizontal omni antenna	$ 74.99
OA-50 6m horizontal omni antenna	69.99
SK-50 Stacking harness for OA-50	36.99
OA-144 2m horizontal omni antenna	54.99
SK-144 Stacking harness for OA-144	34.99
OA-222 220 horizontal omni antenna	54.99
SK-222 Stacking harness for OA-222 .....Δ	14.99
OA-432 430 horizontal omni antenna	54.99
SK-432 Type N stacking harness; OA-432	54.99
SM-50 6m 2el stressed moxon 5.8db beam	79.99
UHFDN450 440 dual band notch filter	69.99
VHFDN152 2m dual band notch filter	69.99
VHFDN152HT 2m dual band HT notch filter	68.99
VHFTN152-158 2m dual band+pager notch filt	82.99
UHF-12 12" RG58/silver/gold/tef PL259s	9.99

PENETROX (PEN)

Penetrox A 4 oz tube for antennas	$ 12.99

POLICE CALL (POL)

Vol 3/4 2004 IL/IN/KY/MI/OH/WI book/48 state CD	$ 19.99
Vol 5/8 2004 AZ/CO/IA/NV/etc book/48 state CD	19.99

POLYPHASER (PLY)

LIGHTNING PROTECTION

IS-50NX-C2 125-1000 375/125/50w N flange	$ 61.99
IS-50UX-C0 1.5-400 2kw/375/125w flange mt	61.99
IS-50UX-C1 50-700MHz 375/125w flange mt	61.99
IS-B50LN-C2 125-1000 375/125/50w N bulkhead	64.99
IS-B50LU-C0 1.5-400 2kw/375/125w bulkhead	64.99
IS-B50LU-C1 50-700 375/125w bulkhead mt	64.99
IS-IE50LU-C0 1.5-400 dlx 2kw/375/125w bulkhd Δ	89.99
IS-IE50LU-C1 50-500 dlx 375/125w bulkhead Δ	39.99
IS-IE50LN-C1 50-700 dlx 375/125w N bulkhd Δ	89.99
BF Adapter Bulkhead to flange mt adapter Δ	6.99
FB Adapter Flange to bulkhead mt adapter Δ	8.99
IS-PLDO-120-15A 120v 15A power protector D	139.99
IS-PLDO-120-20A 120v 20A power protector D	179.99
PLDO-120US15A 120v 15A power protector	159.99
PLDO-120US20A 120v 20A power protector	199.99
IS-RCT 8-wire rotor control protector	54.99
J-1 ½" to 1⅓" bronze transition clamp	8.99
J-2 1½" to 2¼" bronze transition clamp	12.99
IS-SPTL Single phone line protector	57.99
CS112-25 25' 1½" copper strap	25.99
CS112-50 50' 1½" copper strap	49.99
CS112-75 75' 1½" copper strap .....D	59.99
CS112-100 100' 1½" copper strap	99.99
CS3-25 25' 3" copper strap	49.99
CS3-50 50' 3" copper strap	99.99
CS3-75 75' 3" copper strap .....D	109.99
CS3-100 100' 3" copper strap .....Δ	149.99
CU-SPGP Copper single point ground panel	69.99
TK-2 1½" strap to Rohn twr corrosion free clamp	5.99
TK-3 1½" strap-2¼" to 3¾" mast corr free clamp	8.99
1C-112S #6-#1 wire to 1½" strap clamp bond	10.99
58R-112S 1½" strap to ⅝" gnd rod clamp bond	12.99
MSC-3 Junc; 2+ 1½" or 3" strap clamp bond	10.99
UNI-KIT 2CT Gnd kit; coax to alum/tin/galv	29.99
UNI-KIT 2TC Gnd kit; galv twr leg to copper	32.99
UNI-KIT 2CC Ground kit; coax to copper	28.99
CCK Copper cleaning kit; 4 oz can, brush	27.99
GLEP Lightning and EMP Protection book ...D	20.00
LPGS Lightning Protection/Grounding book	20.00

PREMIER (PRE)

AL-800 2m/440 34" BNC rubber duck ant	$ 29.99

Premier - continued

	AES Price
RD-2 2m/440 2" BNC duck	14.99
RD-2SMA 2m/440 2" SMA duck	15.99
RD-8 2m/440/900 6.5" BNC duck	14.99
RD-9 2m/440/900 7" BNC duck	18.99
RD-9SMA 2m/440/900 7" SMA duck	20.99
RD-78 2m/440/900 15" BNC whip	19.99
RD-98 2m/440 17" BNC whip	24.99
RD-98SMA 2m/440 17" SMA whip	27.99
SPM-100 Spkr/mic; ADI/Alinco/Icom/Yaesu	27.99
SPM-101 Spkr/mic for Kenwood	27.99
SPM-102 Spkr/mic; Yaesu FT-50R/VX-1R/5R	27.99
SPM-301 Spkr/mic/PTT lock/volume; Kenwood Δ	4.99
SPM-400A Boom/mic; ADI/Alinco/Icom/Yaesu	37.99
SPM-402A Boom mic; Yae FT-50R/VX-1R/5R	37.99
PCA-YVHF Cable/modular; Yaesu VHF .....Δ	.99

PRO AM by VALOR (VAL)

VHF/UHF ANTENNAS ONLY (No Mounts)

M0144-440 2m/440 antenna only	$ 21.99
PAQA 136-515 MHz ¼ wave antenna only	9.99
PHB-144 2m ⅝ wave 3 db antenna only	29.99

MOUNTS ONLY FOR ABOVE ANTENNAS

PAM Low profile magnet mount w/coax	$ 24.99
PAMB Black low profile mag mount w/coax	24.99
PAN38 ⅜-24 antenna to NMO mt adapter	14.99
PAS ¾" surface mount w/coax	19.99
PASMO ¾" surface mt only (no coax)	7.99
PAS38 ⅜" surface mount w/coax .....Δ	6.99
PAT-2 No hole trunk mount w/coax	19.99
PAT-2B Black no hole trunk mount w/coax	19.99

OTHER VHF/UHF ANTENNAS & MOUNTS

100ADN SO-239 horizontal mirror mt	$ 10.99
101ADN HD alum mirror mt w/SO-239	10.99
105AD Hvy duty ⅜" mount assembly	6.99
105HD Heavy duty mount assembly	3.99
301 4" low profile ⅜-24 magnet mt w/coax	16.99
401 5" low profile ⅜-24 magnet mt w/coax	19.99
BNC-SC-RS Suction cup extension; ducks	14.99
DAK Mt for 2 vert ants or horizontal dipole	13.99
GM-144 2m 2.5db on glass antenna	29.99
GM-270 2m/440 2.6/6.3db on glass antenna	59.99
TGMKD On glass replacement mtg kit	8.99
MM-3401 Maxi-mag mt ⅜-24 kit (3-5" mags)	59.99
SS-100MOT 3-way NMO mirror mt w/coax	23.99
CX-144 2m ⅝ wave 3db ⅜-24 whip	17.99
MM-270B 2m/440 mini mag mt ant w/BNC	19.99
PM-144-440BN 2m/440 BNC mag mt ant	29.99
TGS 30-1200MHz on-glass scanner ant	34.99
VAA-002B 144-450 black ¼ wv mag mt ant	23.99
VAA-002BBN 144-450 black ¼ wv BNC mag ant	27.99
120 Sawtooth hump mt for mobile radios	7.99
D-270 2m/440 100w duplexer .....D	39.99

MOBILE HF ANTENNAS (No Mounts)

AB-5 75/40/20/15/10m antenna	$119.99
PHF-160 160m 8' ⅜-24 whip	89.99
PHF-75 75m 8' ⅜-24 whip (4' coil, 4' whip)	29.99
PHF-40 40m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-30 30m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-20 20m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-17 17m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-15 15m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-12 12m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-10 10m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-6 6m 58" ⅜-24 whip	23.99
103S Quick disconnect/5 twist lock connectors	24.99

QRZ (WAL)

Ham QRZ US & international calls plus programs	$ 24.99

QSL Card Holders (ART)

QSL Card Holders, pack of 3, 20 cards/holder	$ 18.99

AES Price

QUEST (QUS)

1004	Astra 1 hobby rocket kit	$ 7.49
1014	Big Betty hobby rocket kit	9.99
1604	QE-Z payloader quick kit	11.99
2001	Evader cruise missle kit	7.99
5721	Cyclone RTF rocket kit	9.99
5740	A6-4 motor flight pack (3)	6.29
5741	B6-4 motor flight pack (3)	6.79
5743	C6-3 motor flight pack (3)	7.49
5744	C6-5 motor flight pack (3)	7.49
7010	TigerTail II igniters (6)	2.99
7021	Recovery wadding (100 sheets)	2.99
7700	Complete launch system	18.99

RCA (RCA)

108	F-56 connector w/o-ring for TV coax	$ .49
AH-19	6' audio cable w/RCA plugs	2.99
AH-211	25' audio cable w/RCA plugs	6.99
ANT-1020	VHF TV/UHF TV/FM indoor antenna	19.99
RP-3710	AM/FM clock radio	24.99
TA-25	25db VHF/UHF TV/FM distribution amp	19.99
VH-84	6' audio/video cable w/gold RCA plugs	5.99

RF INQUIRY (RFI)

CF250E-UHF	250w 1.8-70 common mode filter	$ 89.99
CF5KV-UHF	5kw 1.8-70 common mode filter	124.99

RF PARTS (See Diamond)

RAMSEY (RAM)

AA-7	Active antenna kit	$ 34.99
AR-1	Aircraft receiver kit	34.99
CW-7	CMOS keyer kit Δ	19.99
DF-1	Foxhound direction finder kit	69.99
FR-1	FM broadcast receiver kit	29.99
HR-20	20m receiver kit	34.99
HR-40	40m receiver kit	34.99
QRP-20	20m CW transmitter kit	34.99
QRP-40	40m CW transmitter kit	34.99
RFS-1	RF sensed switch kit	19.99
SCA-1	SCA decoder kit	34.99
SR-2	Shortwave receiver kit	39.99
TS-1	CW touch paddle switch kit Δ	4.99
UT-5	Universal timer kit	9.99
VS-1	Voice activated switch kit	9.99

RANGER (RAN)

RCI-2950DX	10/12m 25w SSB/10w FM/AM/CW	$269.99
RCI-2970DX	10/12m 150w SSB/50w FM/AM/CW	399.99
RCI-5054DX	6m 25w SSB/10w FM/AM/CW	269.99

Robinson Racing (RRP)

1422	48P absolute pinion 22T	$ 4.99

SGC (SGC)

04-01	SG-2000 150w 1.8-30 MHz Xcvr ....D	1429.99
51-82	Fan kit for continuous duty xmit	269.99
04-10	SG-2000 Xcvr w/DSP/PowerTalk head Δ	1649.99
04-23	SG-2000 Xcvr/DSP/PowerTalk remoted Δ	1879.99
52-34	RS-232 interface; SG-2000 Xcvr ..Δ	119.99
52-51	CA-1 High voltage feed wire Δ,per ft.	.29
52-54	CA-2000 Rem head cable ..Δ,per ft.	.99
53-04	PS-30 30A/40A peak unreg ps ....Δ	299.99
53-05	PS-50 50A/70A peak unreg ps ....Δ	369.99
52-61	PSC/12-1 12' ps cable, 1 plug .Δ	29.99
52-62	PSC/12-1 12' ps cable, 2 plugs Δ	49.99
05-01	SG-2020 Mini 20w PEP QRP Xcvr/mic ..D	599.99
05-04	SG-2020 Mini 20w PEP QRP Xcv/mic/ADSP2	789.99
54-22	SG-239 200w Smartuner	179.99
52-96	SG-500 1.8-24MHz 12v 500w PEP amp	1249.99
51-82	Fan kit for continuous duty xmit	269.99
54-14	SG-230 200w 1.8-30 MHz 12v Smartuner	489.99
54-61	25' extension cable	60.99

SGC - continued

AES Price

54-62	50' extension cable	90.99
54-63	SmartLock; tuners made after 9/1/93	59.99
54-15	SG-235 500w 1.8-30MHz 12v Smartuner	1169.99
54-17	SG-231 HF+6m 12v Smartuner	529.99
54-18	SG-237 100w PEP HF+6m mini Smartuner	359.99
54-19	SG-237 PCB only 100w PEP Smartuner	249.99
54-22	SG-239 200w Smartuner	179.99
54-23	Stealth Kit SG-237 w/loop antenna	399.99
54-25	MAC-200 Smartuner/ant switch combo	359.99
54-26	SG-211 60w mini Smartuner	179.99
55-04	SG-103 2-28 MHz 90' 150w dipole .Δ	199.99
55-27	SG-303 1.8-30 9' mobile whip & mt Δ	399.99
55-67	Replacement whip for SG-303 .....Δ	249.99
55-28	SG-307 1.8-60 7' mobile whip & mt	449.99
55-47	QMS-2 Quick mt sys w/SG-230/303 whip	894.99
55-48	QMS-3 Quick mt 500w sys/SG-235 .Δ	1899.99
55-50	QMS-37 Quick mt sys/SG-237, less whip	549.99
70-14	ADSP2 DSP noise reduction speaker	129.99

SAMLEX (SAM)

FCP-1000	1A ps w/cigarette lighter socket	$ 9.99
SEC-1223	23A switching ps w/fan, 24A surge	99.99
SI-175HP	175w 12vdc-115vac inverter	29.99
SI-400HP	400w 12vdc-115vac inverter	49.99
SPS-1204UL	3.5A switching ps+cig socket	29.99

SANGEAN (SAN)

ATS-404	AM/FM/SW portable receiver w/case	$ 79.99
ATS-505P	AM/FM/SW portable receiver	129.99
ATS-606A	AM/FM/shortwave portable receiver	139.99
ATS-818	AM/FM/shortwave portable Rcvr ...D	169.99
ATS-818CS	AM/FM/SW port Rcvr w/cassette D	199.99
ATS-909	AM/FM/shortwave portable Rcvr	249.99
DT-200V	AM/FM/VHF TV sound dig port Rcvr	69.99
PT-50	AM/FM/SW portable receiver	79.99
PT-80	Deluxe AM/FM/SW portable receiver	159.99
ANT-60	Portable wind-up SWL antenna	13.99

SCANCAT (SCA)

Lite-Plus	Scanner programming software	$ 29.99
Gold for Windows	Dlx scanner prog software	99.99

SEQUOIA (SEQ)

POCKET PC REF	Pocket PC reference book	$ 14.99
POCKET REF	Pocket reference book	12.99
WinRef 98-95	Windows pocket reference book	9.99

SHAKESPEARE (SHA)

396-1	3 db, 5' VHF marine ant, less mount	$ 69.99
5101	6 db, 8' VHF marine ant, less mount	59.99
5202	6db 8' VHF mar ant/chrome ferrule, less mt	89.99
5206-C	Econo 8' VHF mar ant/chrome ferrule, no mt	49.99
495	White plastic lift & lay mount .....Δ	9.99
4187	Stainless steel ratchet mount	36.99
420	3db, 5' VHF marine ant w/fold-down mt	69.99

Smiley Antenna (SMI)

270A	2m/440 gain telescopic whip	$ 19.99
270A/SMA	2m/440 gain tele whip w/SMA	19.99
5/8 SLD-2	2m ⅝ Slim Duck rubber ant	17.99
5/8 SLD-220	220 ⅝ Slim Duck rubber ant	17.99
5/8 SLD-440	440 ⅝ Slim Duck rubber ant	17.99
5/8 SLD-2 Combo	2m ⅝ duck & stubby ant	24.99
5/8 SLD-220 Combo	220 ⅝ duck & stubby ant	24.99
5/8 SLD-440 Combo	440 ⅝ duck & stubby ant	24.99
FLX 1/2 WAV-2M	½ wv 2m BNC whip/flex coil	25.99
RD-2	2m rubber duck antenna	14.99
RD-220	220 rubber duck antenna	14.99
RDMD-2	2m mini rubber duck antenna	14.99
RDMD-220	220 mini rubber duck antenna .Δ	6.99
RDMD-440	440 mini rubber duck antenna	14.99
RDS-2	2m stubby rubber duck antenna	14.99
RDS-220	220 stubby rubber duck antenna	14.99

Smiley - continued

AES Price

RDS-440	440 stubby rubber duck antenna	14.99
SD-2	2m Slim Duck thin rubber antenna	14.99
SD-220	220 Slim Duck thin rubber antenna	14.99
SL-440	440 slimline type duck	12.99
SS-II	Super Stick 2m ⅜ wv telescopic ant	19.99
SS-III	Super Stick 220 ⅜ wv telescopic ant	19.99
SS-IV	Super Stick 440 ⅜ wv telescopic ant	19.99
SS-II/Combo	2m ⅜ wv telescopic & stubby ant	26.99
SS-III/Combo	220 ⅜ wv telescopic & stubby ant	26.99
SS-IV/Combo	440 ⅜ wv telescopic & stubby ant	26.99
TAQ-2	2m ¼ wave stainless whip	10.99
TAQ-220	220 ¼ wave stainless whip	10.99
TAQ-440	440 ¼ wave stainless whip	10.99
TS	Thin Stick 2m/220 ⅜ wave telescopic whip	16.99

SOLARCON (SOL)

A-99	10m/CB 17' 8" fiberglass base ant	$ 64.99
GPK-1	Ground plane radial kit	39.99

SONY SHORTWAVE (SON)

ICF-SW07	AM/FM/SW micro Rcvr w/ps	$399.99
ICF-SW11	AM/FM/SW compact receiver	49.99
ICF-SW12	AM/FM/SW travel Rcvr/world clock	89.99
ICF-SW35	AM/FM/SW portable receiver	89.99
ICF-SW40	AM/FM/SW port receiver	119.99
ICF-SW77	AM/FM/SW portable receiver	469.99
ICF-SW100S	AM/FM/SW portable receiver	349.99
ICF-SW1000T	AM/FM/SW port Rcvr/cassette	399.99
ICF-SW7600GR	AM/FM/SW portable receiver	159.99
AN-1	LW/MW/SW inr/outdoor active rcv ant D	99.99
AN-102	LW/MW/SW indoor active rcv ant	79.99
AN-LP1	Folding active loop ant w/case	89.99
DCC-E260	Mobile DC adapter; ICF-SC1 .....D	6.99

STICKY PAD (STI)

13810	7¼" x 4⅜" sticky pad for handhelds, etc	$ 5.99

Synthetic Textiles (SYN)

100'	3/32" black double braided rope	$ 7.99
100' 3/16	3/16" black double braided rope	16.99
100' 5/16	5/16" black double braided rope	22.99
350'	3/16" black double braided rope	44.99

TV GUARDIAN (TVG)

TV Guardian	TV/video foul language filter ...Δ	$ 89.99

Terk Technologies (TER)

Advantage	Indoor passive fine-tunable AM ant	$ 49.99
AF-9330	Indoor AM/amplified FM tower ant D	19.99
AF-9925	Indoor AM/amplified FM loop ant .D	39.99
AM-1000	Indoor passive fine-tunable AM ant D	39.99
FM-50	Amplified indoor/outdoor FM ant kit.Δ	39.99
HDTV-I	Indoor UHF/VHF HDTV antenna	29.99
LF-30S	2.4GHz wireless vid/aud sys/rem features	99.99
LF-IRX	Remote control extender	39.99
MOD-41	Deluxe RF modulator/switch	39.99
PI-B	Indoor AM/amplified FM loop antenna	49.99
Tower	Indoor AM/amplified FM tower antenna	24.99
TSP-6	AC/TV/telephone surge protector	29.99
TV-42	Clip-on mini dish mt amp TV ant; 2 LNB dish	49.99
TV-55	Indoor/outdoor TV antenna	89.99
TV-MAST	TV antenna mast mount kit .....D	1.99
VR-1	TV volume regulator	49.99
VS4-MOD	Deluxe 4 input RF modulator/switch	49.99

TESTORS (TES)

800001	1/32 radio control mini cooper/metal	$ 29.99
800002	1/32 radio control audi tt coupe/metal	29.99

Times Microwave (TMS)

LMR-400	Standard ⅜" coax cable .....per ft.	$ .64
LMR-400	.....500 ft. Roll	249.99
LMR-400-DB	Watertight ⅜" coax cable per ft.	.74
LMR-400-DB	.....500 ft. Roll	299.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Times - continued

AES Price

LMR-400-UF UltraFlex ⅜" coax cable ...per ft. .98
LMR-400-UF ...500 ft. Roll 399.99

TIMEWAVE (TIM)

ANC-4 RF noise canceller $209.99
AC-1 12vdc 600 ma adapter 15.99
AC-5 12vdc 1.7A desktop ps 24.99
DSP-599zx All-mode DSP noise filter 436.99
AC-5 12vdc 1.7A desktop ps 24.99
PK-96/100K 9600 baud controller/128K RAM 219.99
(CSS) PK-Term 99 Terminal prog; PK-96/232 79.99
AC-1 12vdc 600 ma adapter 15.99
AC-5 12vdc 1.7A desktop ps 24.99
PK-232/PSK Multimode controller w/sound card 531.99
(CSS) PK-Term 99 Terminal prog; PK-96/232 79.99
AC-5 12vdc 1.7A desktop ps 24.99
HSC-99 HamHub station controller 349.99

TRAXXAS (TRX)

2410 Bandit RTR electric buggy w/TQ radio .. $129.99
3606 Stampede RTR electric monster truck w/ESC 174.99
3706 Rustler RTR electric stadium truck w/ESC 154.99
3710 Rustler RTR electric stadium truck w/TQ Tx 134.99
3906 E-Maxx RTR electric monster truck 334.99

TRINITY (TRN)

RC-2141 Monster horsepower stock pro $ 39.99

TRIPP LITE (TRI)

PV-140 140w 12vdc-115vac inverter D $ 24.99
PV-150 150w 12vdc-115vac inverter Δ 24.99
PV-300 300w 12vdc-115vac inverter D 39.99
PV-375 375w 12vdc-115vac inverter Δ 39.99
ISOBAR-8 ULTRA 8 outlet surge suppress/LEDs 79.99
SUPER-7 7 outlet surge suppressor 19.99
SUPER-7+TEL 7 outlet/fax modem surge 29.99

TUBES (TUB)

6146W Tube $ 26.99
12BY7A Tube 12.99
3-500ZG-RFP High dissipation tube (3-500Z) 159.99
572B Tube 49.99
811A Tube 19.99

US TOWER (UST)

FREE STANDING CRANK-UPS (not for T²X)

TX-438 38' crank-up tower T 1299.99
TX-455 55' crank-up tower T 1799.99
TX-472 72' crank-up tower T 2939.99
TX-472MDP 72' crank-up w/motor drive T 4729.99
TX-489MDPL 89' crank-up w/motor drive T 7659.99

FREE STANDING HD CRANK-UP TOWERS

HDX-538 38' crank-up tower T 1539.99
HDX-555 55' crank-up tower T 2679.99
HDX-572MDPL 72' crank-up w/motor drive T 7019.99
HDX-589MDPL 89' crank-up w/motor drive T 9189.99
HDX-689MDPL 89' HD crank-up w/motor T 17739.99
HDX-5106MDPL 106' HD crank-up w/motor T 19299.99

COMPACT TMM (Top mt rotor for full retraction)

TMM-433SS 33' crank-up tower T 1379.99
TMM-433HD 33' HD crank-up tower T 1669.99
TMM-541SS 41' crank-up tower T 1809.99

ACCESSORIES FOR CRANK-UP TOWERS

CX-2 Coax arms (2) for 2-section tower $ 68.99
CX-3 Coax arms (3) for 3-section tower 94.99
CX-4 Coax arms (4) for 4-section tower 134.99
CX-5 Coax arms (5) for 5-section tower 184.99
CX-6 Coax arms (6) for 6-section tower 234.99
HDP Service platform T 1299.99
IV-16 Inverted vee arm for MA's 51.99
M-5 2" OD 5' mast extension for MA's 51.99
M-10 2" OD 10' mast T 94.99

US Tower - continued

AES Price

M-15 2" OD 15' mast T 129.99
M-15R 2" OD 15' reinforced mast T 189.99
M-20 2" OD 20' mast T 169.99
M-20R 2" OD 20' reinforced mast T 249.99
CM-20 2" OD 20' cromolly mast T 499.99
MD-75 Heavy duty 1 HP motor drive T 1049.99
MDP-750* Pull-down drive; TX-472/HDX-555 T 1629.99
MDPL-1000* Pull-down drive; HDX-572 T 2199.99
*Requires MCL-100 or RMC-1000. MDP-750 and MDPL-1000 not sold separately
MRF Mast raising fixture 329.99
MCL-100 Limit switch package 519.99
RMC-1000 Remote control w/limit switch 1069.99
RP-3 Rotor plate for 10" section 52.99
RP-4 Rotor plate for 12½" section 63.99
RP-5 Rotor plate for 15" section 70.99
TRX-80 Raising fixture; TX-438/455;HDX-538/555 T 529.99
TRX-80HD Raising fixture;TX-472/489;HDX-572/589 T 699.99
TRX-100HD Raising fixture; HDX-689/5106 T 939.99
TB-2US Thrust bearing; 2" mast w/2 flange holes 119.99

MA-SERIES TUBULAR TOWERS

MA-40 40' crank-up mast T 1049.99
MA-550 55' crank-up mast T 1619.99
MA-550MDP 55' crank-up mast w/motor T 3049.99
MA-770* 70' crank-up mast T 2639.99
MA-770MDP* 70' crank up mast w/motor T 4149.99
MA-850* 85' crank-up mast T 4069.99
MA-850MDP* 85' crank-up mast w/motor T 5589.99
*Requires MAB or MARB-series base

MA-SERIES ACCESSORIES

CX-2M Coax arms (2) for MA-40 $ 72.99
CX-3M Coax arms (3) for MA-550 107.99
CX-4M Coax arms (4) for MA-770 164.99
CX-5M Coax arms (5) for MA-850 199.99
MAB-40 Hinged base for MA-40 T 439.99
MAB-550 Hinged base for MA-550 T 519.99
MAB-770 Hinged base for MA-770 T 639.99
MAB-850 Hinged base for MA-850 T 769.99
MAF-40 Raising fixture for MA-40 269.99
MAF-550 Raising fixture for MA-550 T 369.99
MAF-770 Raising fixture for MA-770 T 379.99
MAF-850 Raising fixture for MA-850 T 499.99
MARB-40 Rotor base accessory for MA-40 T 659.99
MARB-550 Rotor base accessory for MA-550 T 769.99
MARB-770 Rotor base accessory for MA-770 T 899.99
MARB-850 Rotor base accessory for MA-850 T 1099.99

All US TOWER products are drop-shipped (shipped direct to you from the US TOWER factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Visalia, California or Lincoln, Kansas via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

UNADILLA (See W2AU)

UNIDEN (UNI)

PC-68Elite AM Mobile CB w/WX alert $ 99.99
PC-68LTW AM Mobile CB w/WX alert 79.99
PC-68XL AM Mobile CB 74.99
PC-78Elite AM Mobile CB w/WX alert 119.99
PC-78LTW AM Mobile CB w/WX alert 99.99
PC-78XL AM Mobile CB 94.99
PRO-510XL AM Mobile CB 39.99

Uniden - continued

AES Price

PRO-520XL AM Mobile CB 54.99
PRO-538W AM Mobile CB w/WX 59.99

UNIDEN BEARCAT

BC-244CLT 30 ch scanner w/instant WX $ 99.99
BC-248CLT 50 ch scanner w/WX alert 109.99
BC-278CLT 100 ch scanner/SAME WX alert 139.99
BC-350A 50 ch prog/service search/AC ps D 89.99
BC-350C 100 ch prog/service search w/AC ps 99.99
BC-785D 1000 ch scanner/trunk/SAME WX 289.99
BCI-25D Digital board for BC-785D 239.99
BC-780XLT 500 ch scanner/trunk/SAME WX D 269.99
BC-796D 1000 ch pocket/trunk/SAME WX/dig 549.99
BC-895XLT 300 ch prog scanner/trunking 199.99
BCT-8 Preprog warning scan/800/trunk/AC ps 179.99
BC-003 Switch box for BC-002 Δ 2.99
BC-60XLT-1 30ch prog pocket; use AA batts 89.99
BC-80XLT 50 ch prog pocket scanner/800 119.99
UA-502 Cig power cord 11.99
AD-100 AC adapter/batt cgr; earlier scanners Δ 6.99
AD-140 Extra charger; BC-100XLT/200XLT Δ 13.99
BP-200 Extra battery; BC-200XLT 26.99
BP-205 Extra battery; BC-100XLT 26.99
SC-180B 100 ch sport pocket/800 MHz 169.99
SC-200 200 ch sport pocket/800 MHz 199.99
AD-70 Extra charger 10.99
BP-120 Extra battery 18.99
LC-120 Carrying case; BC120XLT/230XLT 19.99
(KOS) QZ/99 Noise reduction headphones 59.99
UA-502 Cig power cord 11.99
BC-245XLT 300 ch pocket/trunk/smart scan 209.99
AD-70 Extra charger 10.99
BP-180 Extra battery 16.99
CRX-120 Desk charger; BC-245XLT 24.99
LC-120 Carrying case 19.99
UA-502 Cig power cord 11.99
BC-250D 1000 ch pocket/trunk/SAME WX 269.99
BCI-25D Digital board for BC-250D 239.99
BP-250 Extra battery 14.99
NC-250D Carrying case 29.99
UA-502 Cig power cord 11.99
BC-296D 1000 ch pocket/trunk/SAME WX/dig 549.99
BP-2500 Extra batt; BC2500/3000 Δ 63.99
RFD-001 IN/IL/KY/OH/MI/WI freq book Δ .99
Atlantis-250 5w VHF marine handheld 99.99
Voyager 5w VHF marine handheld/lith ion batt 159.99
Mystic 5w VHF marine handheld/GPS/DSC 339.99
Solara 25w 90 ch VHF marine Xcvr 99.99
Oceanus 25w 90 ch VHF marine Xcvr D 129.99
Oceanus-DSC 25w 90 ch VHF marine Xcvr/DSC 139.99
Polaris 25w VHF marine Xcvr w/hailer 179.99

Unified Microsystems (UNM)

VK-64 CW/voice keyer $229.99
KC-4 CW cable for VK-64 to transceiver 9.99
VKC-8 8-pin audio cable for VK-64 to Xcvr 24.99
XT-4 Small size CW memory keyer 69.99
KC-4 CW cable for XT-4 to transceiver 9.99
W9XT Contest card for IBM PC & compatible 139.99
CCC-8 8pin mic contest card cable semi-kit 44.99

UNI-SOLAR (UNS)

USF-5/FLX-5 5w flexible solar cell $ 89.99
USF-32/FLX-32 32w flexible solar cell 269.99

Universal Towers (UNT)

4-30 4 sq ft wind load 30' alum tower T $325.99
9-30 9 sq ft wind load 30' alum tower T 438.99
12-30 12 sq ft wind load 30' alum tower T 576.99
21-30 21 sq ft wind load 30' alum tower T 679.99
23-30 23 sq ft wind load 30' alum tower T 899.99
35-30 35 sq ft wind load 30' alum tower T 1019.99

Universal - continued AES Price

4-40 4 sq ft wind load 40' alum tower .....T		539.99
7-40 7 sq ft wind load 40' alum tower .....T		679.99
9-40 9 sq ft wind load 40' alum tower .....T		759.99
12-40 12 sq ft wind load 40' alum tower ....T		899.99
15-40 15 sq ft wind load 40' alum tower ....T		1013.99
21-40 21 sq ft wind load 40' alum tower ....T		1119.99
23-40 23 sq ft wind load 40' alum tower ....T		1339.99
4-50 4 sq ft wind load 50' alum tower .....T		769.99
5-50 5 sq ft wind load 50' alum tower .....T		869.99
7-50 7 sq ft wind load 50' alum tower .....T		979.99
9-50 9 sq ft wind load 50' alum tower .....T		1089.99
15-50 15 sq ft wind load 50' alum tower ....T		1449.99
16-50 16 sq ft wind load 50' alum tower ....T		1569.99
4-60 4 sq ft wind load 60' alum tower .....T		1089.99
6-60 6 sq ft wind load 60' alum tower .....T		1339.99
7-60 7 sq ft wind load 60' alum tower .....T		1429.99
9-60 9 sq ft wind load 60' alum tower .....T		1529.99
3-70 3 sq ft wind load 70' alum tower .....T		1379.99
4-70 4 sq ft wind load 70' alum tower .....T		1749.99
6-70 6 sq ft wind load 70' alum tower .....T		1779.99
7-70 7 sq ft wind load 70' alum tower .....T		1869.99
3-80 3 sq ft wind load 80' alum tower .....T		1919.99
4-80 4 sq ft wind load 80' alum tower .....T		2229.99
2-90 2 sq ft wind load 90' alum tower .....T		2299.99
B-14 Base for tower		65.99
B-18 Base for tower		65.99
B-22 Base for tower		103.99
B-26 Base for tower		132.99
Extra **14" stubs** (between base & tower)	.set	14.99
Extra **18" stubs** (between base & tower)	.set	26.99
Extra **22" stubs** (between base & tower)	.set	42.99
Extra **26" stubs** (between base & tower)	.set	42.99
Extra **30" stubs** (between base & tower)	.set	63.99
RFM-11 Flat roof mt for guyed tower		46.99
RFM-14 Flat roof mt for guyed tower		46.99
RFM-18 Flat roof mt for guyed tower		69.99
RFM-22 Flat roof mt for guyed tower		97.99
RFM-26 Flat roof mt for guyed tower		129.99
R-11 Rotor mount		31.99
R-14 Rotor mount		46.99
R-18 Rotor mount		62.99

SEE LITERATURE FOR TOWER CONFIGURATIONS

11 Top 11" top tower section .....T		110.99
14 Top 14" top tower section .....T		138.99
18 Top 18" top tower section .....T		252.99
14 Taper 14" taper tower section .....T		122.99
18 Taper 18" taper tower section .....T		219.99
22 Taper 22" taper tower section .....T		327.99
26 Taper 26" taper tower section .....T		440.99
11 Straight 11" straight tower section .....T		108.99
14 Straight 14" straight tower section .....T		122.99
18 Straight 18" straight tower section .....T		219.99
22 Straight 22" straight tower section .....T		327.99
26 Straight 26" straight tower section .....T		440.99
HD35-40 35 sq ft wind load 40' alum tower T		1569.99
HD21-50 21 sq ft wind load 50' alum tower T		1669.99
HD9-60 9 sq ft wind load 60' alum tower ...T		1759.99
HD16-60 16 sq ft wind load 60' alum tower T		2119.99
HD21-60 21 sq ft wind load 60' alum tower T		2229.99
HD8-70 8 sq ft wind load 70' alum tower ...T		1979.99
HD12-70 12 sq ft wind load 70' alum tower T		2449.99
HD17-70 17 sq ft wind load 70' alum tower T		2669.99
HD21-70 21 sq ft wind load 70' alum tower T		2779.99
HD8-80 8 sq ft wind load 80' alum tower ...T		2529.99
HD9-80 9 sq ft wind load 80' alum tower ...T		2639.99
HD11-80 11 sq ft wind load 80' alum tower T		2999.99
HD12-80 12 sq ft wind load 80' alum tower T		2999.99
HD16-80 16 sq ft wind load 80' alum tower T		3219.99

Universal - continued AES Price

HD4-90 4 sq ft wind load 90' alum tower ...T		2629.99
HD8-90 8 sq ft wind load 90' alum tower ...T		3109.99
HD11-90 11 sq ft wind load 90' alum tower T		3549.99
HD4-100 4 sq ft wind load 100' alum tower T		3529.99
HD8-100 8 sq ft wind load 100' alum tower T		3779.99
B-30 Base for HD tower		207.99
RFM-30 Flat roof mt for guyed tower		180.99
1-5/8SC Flange bearing		98.99
2-3/16SC Flange bearing		109.99
Top Plate Flange plate welded to top section		23.99

SEE LITERATURE FOR TOWER CONFIGURATIONS

30 Taper 30" taper tower section .....T		554.99
30 Straight 30" straight tower section .....T		554.99
1-1/4" OD x 5 ft aluminum mast .....T		23.99
1-1/4" OD x 10 ft aluminum mast .....T		33.99
1-1/2" OD x 10 ft aluminum mast .....T		41.99
2" OD x 8 ft aluminum mast		49.99
2" OD x 16 ft aluminum mast .....T		95.99

All UNIVERSAL TOWERS products are drop-shipped (shipped direct to you from the UNIVERSAL TOWERS factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Mt. Clemens, Michigan via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

VALOR (See PRO AM)

VANCO (VCO)

370052 3½ digit multimeter		$ 19.99
HF-24RS Scanner headphones w/dual volume		19.99
SWR-1 SWR/field strength meter		19.99
SWR-3 Mini SWR meter		14.99

VAN GORDEN (VAN)

Hi-Q 1:1 balun		$ 14.99
Hi-Q 4:1 balun		14.99
Antenna center insulator		6.99
Antenna end insulator	pair	4.99
Dog bone type antenna insulator	each	.99
NR-100 Nylon antenna guy rope	100 ft.	4.99
NR-1000 Nylon ant guy rope	1000 ft.	44.99
D-80 80m 130' wire dipole antenna		32.99
SD-80 Short 90' 80m dipole		36.99
D-40 40m 66' wire dipole antenna		29.99
SD-40 Short 45' 40m dipole		34.99
D-20 20m 33' wire dipole antenna		28.99
D-15 15m 22' wire dipole antenna		27.99
D-10 10m 16' wire dipole antenna		26.99
All Bander Dipole 160-10m (use tuner) 135' ant		29.99
Shorty All Bander 160-10m (use tuner) 70' ant		44.99
G5RV Flat-top 3.5-30 102' ant/xmfr/100' cable		50.99
G5RV-E Flat-top 3.5-30 102' ant/31' twinlead		28.99
G5RV JR Flat-top 7-30 52' ant/17' twinlead		24.99
G5RV-M Flat-top 1.8-30 204' ant/65' twinlead		50.99
N connector Type N connector for 9913/8214		4.99
#14 Stranded hard drawn ant wire	**100** ft.	11.99
#14 Stranded hard drawn ant wire	**150** ft.	16.99
300 ohm 1kw transmitting twinlead	**100** ft.	19.99
450 ohm 18ga solid ladderline	**100** ft.	14.99
450 ohm 18ga solid ladderline	**1000** ft.	109.99
450 ohm 14ga stranded ladderline	**100** ft.	29.99
450 ohm 14ga stranded ladderline	**1000** ft.	229.99
(WA1) WA1FFL **Ladder-Loc** 450 ohm ctr ins		12.99
RG-213 Non-contaminating	per ft.	.49

Van Gorden - continued AES Price

RG-213/500 Non-contaminating .500 ft. Roll		179.99
8X-1.5ST 1.5' RG-8X coax/silver teflon PL259s		7.99
8X-3ST 3' RG-8X coax/silver teflon PL259s		8.99
8X-6ST 6' RG-8X coax/silver teflon PL259s		10.99
8X-12ST 12' RG-8X coax/silver teflon PL259s		11.99
8X-25ST 25' RG-8X coax/silver teflon PL259s		15.99
8X-50ST 50' RG-8X coax/silver teflon PL259s		24.99
8X-75ST 75' RG-8X coax/silver teflon PL259s		31.99
8X-100ST 100' RG-8X coax/silver teflon PL259s		37.99
213-25ST 25' RG-213 coax/silver teflon PL259s		25.99
213-50ST 50' RG-213 coax/silver teflon PL259s		38.99
213-75ST 75' RG-213 coax/silver teflon PL259s		54.99
213-100ST 100' RG-213 coax/silver teflon PL259s		72.99

VECTRONICS (VEC)

VC-300M 300w mobile antenna tuner		$ 99.99
VC-300DLP 300w antenna tuner		149.99
VC-300D 300w digital antenna tuner		179.99
HFT-1500 1.5kw antenna tuner		399.99
AT-100 .3-30 MHz active antenna/tuner		79.99
HPF-1 High pass filter, 75 or 300 ohms		24.99
HPF-2 Deluxe high pass filter, 75 or 300 ohms		29.99
LP-30 1.5kw low pass filter		69.99
LP-2500 2.5kw low pass filter		129.99
DL-300M 300w 150MHz dummy load		44.99
DL-650M 1.5kw 650MHz dummy load		74.99
DL-2500 2.5kw 150MHz dummy load		179.99
PM-30HF 300/3kw HF wattmeter		79.99
PM-30UV 30/300w VHF/UHF wattmeter		89.99
121K Crystal radio set kit		19.99
131K Aircraft receiver kit		29.99
201K CW keyer kit		24.99
412K Nicad/NiMH battery conditioner kit ...Δ		29.99
422K FM broadcast SCA decoder kit		27.99
830K Super SSB audio filter kit		19.99
841K Tunable SSB/CW audio filter kit		34.99
1140K 40m receiver kit		29.99
1240K 40m QRP CW transmitter kit		29.99
1290K AM radio transmitter kit		29.99
1294K TV transmitter kit		27.99
1402K 2m preamp kit ....Δ		9.99

VELLEMAN (VEL)

AVW-089 3 channel audio/video switcher		$ 8.99
DVM-810 3½ digit digital multimeter		9.99
DVM-850BL Deluxe 3½ digit DMM w/holder		19.99
VT-COAX Coax stripper; RG-58/59/62/6		14.99
VT-LAMP2U Magnifier lamp for hobbyists		49.99
VT-SET3N 6-pc electronics screwdriver set		7.99
VT-SET21N 8-in-1 screwdriver set		4.99
VT-TS 25-piece hobbyist tool set		9.99

VIBROPLEX (VIB)

090 Original Gold Bug		$309.99
100 Original Presentation Super deluxe bug		269.99
105 Original Deluxe Bug		199.99
110 Original Standard Bug		169.99
113 VibroKeyer Gold Paddle		279.99
115 VibroKeyer Deluxe Paddle		184.99
120 VibroKeyer Standard Paddle		149.99
123 Iambic Gold Paddle		279.99
125 Iambic Presentation Paddle		249.99
130 Iambic Deluxe Paddle		189.99
135 Iambic Standard Paddle		149.99
145 Triangular Brass Racer Iambic paddle		129.99
150 Square Brass Racer Iambic paddle		139.99
153 Gold straight key		279.99
155 Standard straight key		149.99
160 Deluxe straight key		189.99
162 Gold Hand key/Iambic Paddle double		369.99
163 Gold Hand key/VibroKeyer Paddle double		369.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Vibroplex - continued

AES Price

165 Deluxe Hand key/Iambic Paddle double . 329.99
170 Dlx Hand key/VibroKeyer Paddle double . 329.99
175 Standard Hand key/Iambic Paddle double 279.99
180 Std Hand key/VibroKeyer Paddle double Δ 249.99
185 Square Racer Deluxe Iambic paddle 129.99
190 Square Racer Standard Iambic paddle . 109.99
195 Blue Racer 2000 Std Millennium Bug ... 189.99
198 Blue Racer 2000 Dlx Millennium Bug ... 209.99
200 Code Warrior Junior Paddle 99.99

WA1FFL (WA1)

Ladder-Loc 450 ohm ladderline center attach $ 12.99

W2AU (Unadilla) (W2A)

W2AU 1:1 160-10m balun, lightning arrestor $ 24.99
W2AU 4:1 160-10m balun, lightning arrestor 24.99
W2AU Beam Balun, 1:1 ..... 24.99
W2DU-HF 1:1 1.8-30 MHz choke balun 26.99
W2DU-VHF 1:1 30-250 MHz choke balun 26.99
W2DU Beam Balun 40-10m 1:1 choke balun 26.99
HA AN-sulator center insulator 9.99
HE END-sulator end insulators .....pair 6.99
KW-80CW Reyco 80m CW ant traps .....pair 48.99
KW-80F Reyco 75m phone ant traps .....pair 48.99
KW-40 Reyco 40m antenna traps .....pair 42.99
KW-30 Reyco 30m antenna traps .....pair 42.99
KW-20 Reyco 20m antenna traps .....pair 41.99
KW-17 Reyco 17m antenna traps .....pair 41.99
KW-15 Reyco 15m antenna traps .....pair 41.99
KW-12 Reyco 12m antenna traps .....pair 41.99
KW-10 Reyco 10m antenna traps .....pair 41.99
W2AU/W2VS 5-band ant kit (use tuner) 85.99

W5YI (W5Y)

BCOM Basic Communications Electronics book $ 17.99
BDIG Basic Digital Electronics book 17.99
BELC Basic Electronics book 17.99
ECS-02 Extra upgrade software/manual/code 39.99
GROL Commercial license elements 1/3/8 manual 39.99
GRSP Commercial study software w/GROL book 69.99
GSTD Getting Started in Electronics book 17.99
GUS General upgrade software/manual/code .....D 34.99
GUS-04 General upgrade software/manual/code 39.99
GW05 Gordon West 6 ea 0-5 wpm code tapes .. 29.99
GW13 Gordon West 6 ea 5-16 wpm code tapes 29.99
GW20 Gordon West 6 ea 10-28 wpm code tapes 29.99
GWCT Gordon West refresher code course audio CDs 14.99
GWEM-02 Gordon West Extra study manual .. 19.99
GWEW-02 Gordon West 6 ea Extra theory tapes 29.99
GWGM Gordon West General study manual .D 12.99
GWGM-04 Gordon West General study manual 17.99
GWGW Gordon West 4 ea General theory tapes D 19.99
GWGW-04 Gordon West 4 ea General theory tapes 24.99
GWTM-03 Gordon West Tech study manual ... 15.99
GWTW-03 Gordon West 6 ea Tech theory tapes 34.99
HOS-03 Ham op software/code (all classes) D 39.99
HOS-04 Ham operator software/code (all classes) 39.99
HOSB-03 Ham op soft/code/3 books (all classes) D 69.99
HOSB-04 Ham op soft/code/3 books (all classes) 79.99
Mini-1 Timer, op amp & optoelectronics 10.99
Mini-2 Science & communications 10.99
Mini-3 Electronic sensors 10.99
Mini-4 Electronic formulas, symbols & circuits 10.99
NCS-03 Technician software w/manual 39.99
TPG-03 Tech/General soft/manuals/code ....D 54.99
TPG-04 Tech/General software/manuals/code 59.99
WMC 0-48 wpm code software 14.99

WAHL (WAH)

7740 Quick charge cordless soldering iron kit $ 47.99
7971 30 minute butane soldering iron 19.99
7974 120 minute butane soldering iron 27.99

AES Price

Watson Guptill (WAT)

059685 2004 World Radio TV Handbook ..... $ 29.95

WELLER (WEL)

7200PK 75w soldering gun kit ..... $ 28.99
7235 Extra standard tips (2) for 7200PK ... 3.99
SP-23LK 25w soldering iron kit 17.99
WP-25 25w professional soldering iron 34.99
ST-4 3/16" screwdriver tip for WP-25 ..... 4.99
ST-5 ½" single flat tip for WP-25 ..... 4.99
W-60P 60w temp controlled soldering iron ... 64.99
CT-5E7 ¼" screwdriver tip for W-60P 6.99
WESD51 50w adjustable soldering station ... 149.99
WSTA3 Pyropen portable LP soldering iron 99.99
WST2 Pyropen Jr. portable butane iron 89.99
WTCPT 60w temp controlled soldering stn 119.99

West Mtn Radio (WES)

RB/PR/C Rigblaster Pro; 8-pin/RJ-45 ..... $249.99
RB/PL/C Rigblaster Plus; 8-pin/RJ-45 ..... 139.99
RB/M8/C Rigblaster; 8-pin/RJ-45 ..... 109.99
RB/NO/8C Rigblaster nomic for 8-pin radios 59.99
RB/NO/RJC Rigblaster nomic for RJ-45 radios 59.99
RB/NO/FT100 Rigblaster nomic; Yae modular 6 59.99
RR/4010S/C Rigrunner FET 9outlet/cbl/connectors 119.99
RR/4012/C Rigrunner 40A 12outlet/cbl/connectors 112.99
RR/4008/C Rigrunner 40A 8outlet/cbl/connectors 92.99
RR/4005/C Rigrunner 40A 5outlet/cbl/connectors 59.99
C30/PK/12 12pr PowerPole 30A connectors 10.99
CR/Tool Gardner Bender forged crimp tool 9.99
Whatt Meter W/V/A/AH meter for any powerpole 69.99

WILSON (WIL)

FGT-4/BLK 4' black figerglass CB whip ..... $ 27.99
FGT-4/WHT 4' white figerglass CB whip 27.99
Little Wil Magnetic mt CB antenna 31.99
Trucker 2000 Black mobile ⅜-24 CB whip ... 54.99
W-1000 Magnetic Black mobile CB antenna 76.99
W-1000 Roof Top Black mobile CB antenna . 57.99
W-1000 Trunk Lip Black mobile CB antenna 65.99

WINEGARD (WIN)

CX-0625 25' RG-6 TV coax w/F connectors ... $ 10.99
CX-0650 50' RG-6 TV coax w/F connectors ... 15.99
CX-0675 75' RG-6 TV coax w/F connectors ... 19.99
CX-6100 100' RG-6 TV coax w/F connectors . 24.99
PR-7010 22 el 66.5" boom Prostar TV ant 39.99
PR-7032 33 el 103.25" boom Prostar TV ant 64.99
PR-7042 43 el 149.75" boom Prostar TV ant 99.99
TV-2900 Outdoor TV matching transformer 2.99

YAESU (YAE)

FT-1000MP Mk V 200w HF Xcvr/EDSP/tuner/ps 2089.99
Mk V Field 100w HF Xcvr/EDSP/tuner/ps 1739.99
DVS-2 Digital voice recording module 219.99
FH-1 Remote control keypad 88.99
FTV-1000 200w 6m transverter; Mk V 899.99
FP-29 30vdc ps; FTV-1000 w/orig MP/Field 499.99
FRB-5 Relay board; FTV-1000 w/orig MP 50.99
MD-100A8X Desk mic w/tone control 129.99
MD-200A8X Deluxe high fidelity desk mic . 379.99
MH-31B8 Extra hand microphone 39.99
SP-8 External speaker w/filters 159.99
LL-7 Phone patch unit for SP-8 ..... 139.99
TCXO-6 Deluxe TCXO unit, 0.5 ppm 174.99
YF-110CN 250 Hz 3rd IF main Rcvr CW filt 144.99
YF-110SN 2 KHz 3rd IF main Rcvr SSB filt 144.99
YF-114CN 250 Hz 2nd IF main Rcvr CW filt 144.99
YF-114SN 2 KHz 2nd IF main Rcvr SSB filt 144.99
YF-115C 500 Hz CW Collins mech filter 159.99
YH-77STA Open-air type stereo headphones 51.99

Yaesu - continued

AES Price

FT-847 HF/6m/2m/430 Earth Station Xcvr/mic 1569.99
(W4R) **Antenna Boss** interface; other mfgr mot ant 179.99
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
ATAS-120 HF/6/2/430 motorized mob ant .. 299.99
ATBK-100 Antenna base kit; use w/base mt 89.99
CT-39A Packet cable 9.99
CT-61 Interface cable; FT-847 to amp 15.99
FC-20 Automatic antenna tuner 269.99
FVS-1A Voice synthesizer 43.99
MD-100A8X Desk mic w/tone control 129.99
MD-200A8X Deluxe high fidelity desk mic . 379.99
MH-36D8 TTP mobile microphone 60.99
MMB-66 Mobile mounting bracket 39.99
SP-8 External speaker w/filters 159.99
T-9018320 Extra DC cable 26.99
YF-115C 500 Hz CW Collins mech filter 159.99
YF-115S-02 2.5 KHz SSB Collins mech filt 159.99
YH-77STA Open-air type stereo headphones 51.99
FT-840 HF Xcvr/SW Rcvr/mic 579.99
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
FC-10 External coax fed auto tuner 379.99
FC-800 External long wire auto tuner 439.99
FIF-232C Interface for RS-232 ..... 95.99
FM-747 FM unit 62.99
MD-100A8X* Desk mic w/tone control 129.99
*Cable needed for FT-840; contact service for info
MD-200A8X Deluxe high fidelity desk mic . 379.99
MLS-100 Mobile speaker 45.99
MMB-20 Mobile mount 34.99
SP-6 External speaker w/filter 144.99
T-9018320 Extra DC cable 26.99
TCXO-4 TCXO unit 99.99
YF-112A 6 KHz AM filter 119.99
YF-112C 500 Hz CW filter 119.99
YH-77STA Open-air type stereo headphones 51.99
FT-897D HF/6m/2m/430 port/base Xcvr/TCXO 889.99
(W4R) **Antenna Boss** interface; other mfgr mot ant 179.99
(W4R) **OTT-897** One-touch tune; 817/857/897 64.99
FP-30 Internal power supply 209.99
ATAS-120 HF/6/2/430 motorized mob ant .. 299.99
ATBK-100 Antenna base kit; use w/base mt 89.99
CT-39A Packet cable 9.99
CT-62 CAT interface cable 29.99
FC-30 Antenna tuner; bolts to FT-897 ..... 239.99
FNB-78 4.5ah NiMH batt (will accept 2) .† 99.99
CD-24 4-hr charge adapter for FNB-78 .. 119.99
PA-26B 110vac charger for CD-24 ..... 85.99
MD-100A8X Desk mic w/tone control 129.99
MD-200A8X Deluxe high fidelity desk mic . 379.99
MH-36E8J TTP mic 60.99
MH-59A8J Remote control TTP mic 64.99
MLS-100 Mobile speaker 45.99
MMB-80 Mobile mounting bracket 35.99
SP-6 External speaker w/filter 144.99
T-9023225 Extra DC cable 26.99
YF-122C 500 Hz Collins CW filter 159.99
YF-122CN 300 Hz Collins CW filter 159.99
YF-122S 2.3 KHz Collins SSB filter 159.99
YH-77STA Open-air type stereo headphones 51.99
FT-857D Mini HF/6m/2m/430 Xcvr/DSP 779.99
(W4R) **Antenna Boss** interface; other mfgr mot ant 179.99
(W4R) **OTT-897** One-touch tune; 817/857/897 64.99
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
ATAS-120 HF/6/2/430 motorized mob ant .. 299.99
ATBK-100 Antenna base kit; use w/base mt 89.99
CT-39A Packet cable 9.99
CT-58 Band data cable; Yaesu amplifier ... 29.99
CT-62 CAT interface cable 29.99

Yaesu - continued

	AES Price
FC-30 Antenna tuner; bolts to FT-897	239.99
MD-100A8X Desk mic w/tone control	129.99
MD-200A8X Deluxe high fidelity desk mic	379.99
MH-36E8J TTP mic	60.99
MH-59A8J Remote control TTP mic	64.99
MLS-100 Mobile speaker	45.99
MMB-67 Quick release bracket	29.99
SP-6 External speaker w/filter	144.99
T-9023225 Extra DC cable	26.99
TCXO-9 TCXO unit, 0.5 ppm	99.99
YF-122C 500 Hz Collins CW filter	159.99
YF-122CN 300 Hz Collins CW filter	159.99
YF-122S 2.3 KHz Collins SSB filter	159.99
YH-77STA Open-air type stereo headphones	51.99
YSK-857 Separation kit	54.99
FT-817ND 5w HF/6/2/430 Xcvr/FNB85/NC72B	629.99
(W4R) **OTT-1** One-touch tune for FT-817 ..D	59.99
(W4R) **OTT-897** One-touch tune; 817/857/897	64.99
ATAS-25 40/20/15/10/6/2/430 7.2' port ant	229.99
CSC-83 Soft case w/side pocket for FT-817	25.99
CT-39A Packet cable	9.99
CT-62 CAT interface cable	29.99
EDC-6 Extra DC cord; plug & wire only	7.99
FNB-72 9.6v 1000mah nicad battery	60.99
MH-36E8J TTP mic	60.99
MLS-100 Mobile speaker	45.99
NC-72B Extra nicad wall charger	18.99
TCXO-9 TCXO unit, 0.5 ppm	99.99
YF-122C 500 Hz Collins CW filter	159.99
YF-122CN 300 Hz Collins CW filter	159.99
YF-122S 2.3 KHz Collins SSB filter	159.99
DSP-2 DSP unit for original FT-857 ....Δ	66.99
FM-1 FM unit for FT-920 ....Δ	62.99
FP-1023 23A switching ps w/fan, 25A surge	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
SP-5 External spkr w/audio filter ....Δ	144.99
T-9021925 Extra DC cord; FT-100D ....Δ	42.99
TCXO-7 TCXO unit for FT-920 ....Δ	99.99
XF-117A 6 KHz AM filter; FT-100D ....Δ	119.99
XF-117CN 300 Hz CW filter; FT-100D ....D	89.99
YA-30 1.8-30 MHz broadband dipole ant	229.99
YF-116A 6 KHz AM filter for FT-920 ....Δ	119.99
YF-116C 500 Hz CW filter for FT-920 ....Δ	119.99
YH-77STA Open-air type stereo headphones	51.99
YS-60 1.8-60 MHz 2kw PEP wattmeter	129.99
YS-500 140-520 MHz 200w PEP wattmeter	109.99
YSK-100 Separation kit for FT-100D ....Δ	79.99
Quadra System VL/VP1000 HF+6m amp/ps/tuner	3999.99
FRG-100B .1-30 MHz shortwave receiver	599.99
FIF-232C Interface for RS-232	95.99
FM Unit-100 FM unit	47.99
TCXO-4 TCXO unit	99.99
YF-110CN/XF-F 250 Hz CW xtal filter	144.99
YF-115C 500 Hz CW Collins mech filter	159.99
VR-120D .1MHz-1.2995GHz AM/FM hand/cell blkd	199.99
CA-34 Charger sleeve; NC-82/VR-120D	4.99
CSC-76 Soft case for VR-120/D	19.99
CT-35 Clone cable; VR-120/D ....D	9.99
EDC-15 DC adapter	38.99
FNB-79 Nicad battery for VR-120D	8.99
NC-82 Charger stand	8.99
PA-30B AC adapter	7.99
VR-500 .1M-1.3G AM/FM/SSB hand/cell blkd	299.99
ADMS-3 Windows programming software	38.99
CSC-72 Soft case for VR-500	19.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC adapter; plug & wire only	7.99
FNB-59 Nicad battery for VR-500	29.99
NC-60B Wall charger	14.99
VR-5000 .1M-2.6G base rcvr AM/FM/SSB/cell blkd	599.99
DSP-1 DSP unit	119.99

Yaesu - continued

	AES Price
DVS-4 Digital voice recorder	47.99
FVS-1A Voice synthesizer	43.99
E-736 DC cable for FT-736R ....Δ	16.99
FEX-736-220 220 MHz module; FT-736R ...Δ	309.99
AD-3 100w 2m/440 duplexer	52.99
FRC-4 DTMF pager unit; FT-5200/6200 ....D	.99
FT-7800R 50w 2m/40w 440 FM Xcvr	279.99
CT-39A Packet cable	9.99
MLS-100 Mobile speaker	45.99
MMB-60 Quick release mobile mount	29.99
SP-4 Mobile speaker ....D	31.99
T-9021715 Extra DC cable	12.99
YSK-7800 Remote separation kit	54.99
FT-8800R 50w 2m/35w 440 FM Xcvr	369.99
ADMS-2I Windows programming software	38.99
CT-39A Packet cable	9.99
MLS-100 Mobile speaker	45.99
MMB-60 Quick release mobile mount	29.99
MMB-62 Remote front panel mounting bkt	39.99
SP-4 Mobile speaker ....D	31.99
T-9021810 Extra DC cable	12.99
YSK-8900 Remote separation kit	54.99
FT-8900R 50w 10m/6m/2m/35w 440 FM Xcvr	419.99
ADMS-2H Windows programming software	38.99
CT-39A Packet cable	9.99
MLS-100 Mobile speaker	45.99
MMB-60 Quick release mobile mount	29.99
MMB-62 Remote front panel mounting bkt	39.99
SP-4 Mobile speaker ....D	31.99
T-9021810 Extra DC cable	12.99
YSK-8900 Remote separation kit	54.99
ADMS-2D Prog soft; 3000/8000/8100/8500 Δ	38.99
ADMS-2E Windows prog soft; FT-2600M/90R Δ	38.99
ADMS-2G Windows prog soft; FT-7100M ....Δ	24.99
FRC-6 DTMF pager; 2400M/2500M/7400H ..D	.29
MH-36C8J TTP microphone; late FT-2500M .D	59.99
MMB-48 Extra mobile bracket; FT-2600M ..Δ	14.99
RA-0131900 Extra mobile bracket; FT-90R Δ	4.99
RA-0242900 Extra mobile bkt; FT-1500M ...Δ	9.99
YSK-90 Remote separation kit; FT-90R ....Δ	54.99
YSK-7100 Rem separation kit; FT-7100M ...Δ	59.99
YSK-8100 Rem separation kit; FT-8100R ...Δ	69.99
FT-2800M 65w 2m FM Xcvr w/TTP mic	159.99
MLS-100 Mobile speaker	45.99
S-8002051/MMB-83 Extra mobile bracket	4.99
S-8101436 Extra DC cable	7.99
SP-4 Mobile speaker ....D	31.99
ADMS-2F Windows prog software; FT-1500M Δ	38.99
FP-1023 23A switching ps w/fan, 25A surge	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
HRI-100 WIRES II interface box	149.99
LF-1 Mobile 13A DC noise filter	26.99
MLS-100 Mobile speaker	45.99
RA-0242900 Extra mobile bkt; FT-1500M ...Δ	9.99
SP-4 Mobile speaker ....D	31.99
VXR-7000VA/Vertex 50w 2m FM AC/DC rptr	1269.99
VX VPL-1 Repeater programming cables	87.99
Repeaters require service dept set-up; $45 minimum	

Accs for FT-23/33/73/411/811/470/911

CA-7 2 charging sleeves; NC-50/411E/470 .D	$ 2.99
CSC-24S Soft case; FT-23/33/73 w/FNB-12S ..D	.19
CSC-35 Soft case; FT-411/811/911/FNB-17 ..D	.29
FBA-17 AA battery holder ....Δ	19.99
FNB-12S 12v 600mah 5w battery ....Δ	49.99
FNB-17 7.2v 600mah battery ....Δ	29.99
MH-34C2B Compact lapel speaker/mic ....Δ	9.99
NC-34B Wall charger for FNB-14 ....Δ	2.99
NC-65B/NC-18B Wall charger for FNB-12S Δ	2.99
YH-2 Lightweight VOX headset w/mic ....Δ	14.99

Yaesu - continued

	AES Price
FT-50RD/41B 5w 2m/440 HT/FNB41/TTP	209.99
ADMS-1E Windows programming software	38.99
CA-15 Charging stand; FT-10/40/50	27.99
NC-60B Wall charger; FNB-40/41/CA-15	14.99
CLIP-10 Spring loaded belt clip	7.99
CN-3 BNC to SMA adapter: FT-50R	8.99
CSC-68 Soft case; FNB-41/FBA-15	16.99
CSC-V10 Cordura soft case; FT-10/40/50	27.99
CT-27A Cloning cable	11.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	24.99
EDC-6 DC cord; plug & wire only	6.99
FBA-15 4-AA battery holder	19.99
FBA-21 6-AA battery holder	38.99
FEP-10 Earphone	9.99
FNB-41 9.6v 600mah 5w battery	58.99
FNB-V47 7.2v 1100mah battery w/belt clip	55.99
PA-17 Battery cake extender ....Δ	29.99
LCC-10C Leather case/belt clip; 50/FNB41/V47 D	14.99
LCC-10S Leather case/swivel; 50/FNB41/V47	31.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-50 1-hour dual slot charger	92.99
CA-14 2 charging sleeves; NC-50	26.99
VC-25 VOX headset	62.99

Accessories for FT-11R/41R/51R

CSC-61 Case; FT11R/41R/FNB33/38/FBA14 D	$ 4.99
CSC-66 Soft case; FT51R/FNB33/38/FBA14 D	9.99
VX-150 5w 2m FM HT/batt/cgr/16-key TTP	119.99
ADMS-1F Windows programming software	38.99
CN-3 BNC to SMA adapter	8.99
CT-27A Cloning cable	11.99
CT-44 2-pin spkr/mic adapter	11.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	24.99
EDC-6 DC cord; plug & wire only	6.99
FBA-25 6 AA cell battery case	29.99
FNB-V57 7.2v 1100mah battery	57.99
FNB-64 Extra 7.2v 700mah battery	43.99
LCC-150/TT Leather case	23.99
LCC-150S/TT Leather case w/swivel	31.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-72B Extra wall charger	18.99
VAC-400B 1-hour desk top rapid charger	56.99
VC-25 VOX headset	62.99
VX-1R 500mw 2m/440 submini HT/lith ion D	129.99
ADMS-1E Windows programming software	38.99
CN-3 BNC to SMA adapter	8.99
CSC-71 Soft case for VX-1R ....Δ	19.99
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EDC-15 DC adapter	38.99
FBA-20 Battery holder ....Δ	22.99
FEP-10 Earphone ....Δ	9.99
FNB-52LI Extra 3.6v 700mah lith ion batt Δ	36.99
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NC-66B Extra 2 hour wall charger ....Δ	18.99
VC-25 VOX headset	62.99
VX-2R 1.5w 2m/1w 440 submini HT/lith ion	179.99
CN-3 BNC to SMA adapter	8.99
CSC-90 Soft case	16.99
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CT-44 2-pin spkr/mic adapter	11.99
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VC-25 VOX headset	62.99

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Yaesu - continued

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VX-5R Black 5w 6m/2m/4.5w 440 HT/lith ion	219.99
VX-5RS Silver 5w 6m/2m/4.5w 440 HT/lith ion	219.99
ADMS-1E Windows programming software	38.99
CD-15A Charger stand (use with NC-72B)	29.99
CN-3 BNC to SMA adapter	8.99
CSC-73 Soft case	19.99
CT-27A Cloning cable	11.99
CT-44 2-pin spkr/mic adapter	11.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	24.99
EDC-6 DC cord; plug & wire only	6.99
FBA-23 2 AA cell battery case	29.99
FNB-58LI 7.2v 1100mah lith ion batt .....D	65.99
FNB-80LI Extra 7.4v 1300mah lith ion batt	65.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-72B Extra wall charger	18.99
SU-1 Altitude/barometric pressure sensor	35.99
VC-25 VOX headset	62.99
VX-7R Silver 5w 6m/2m/440/300mw 220 FM HT	309.99
VX-7RB Black 5w 6m/2m/440/300mw 220 FM HT	309.99
ADMS-1G Windows programming software	38.99
CT-91 Microphone adapter	10.99
CD-15A Charger stand (use with NC-72B)	29.99
CMP-460A Waterproof speaker/mic	54.99
CN-3 BNC to SMA adapter	8.99
CSC-88 Soft case	14.99
CT-91 Microphone adapter	10.99
EDC-5B DC adapter w/noise filter	24.99
EDC-6 DC cord; plug & wire only	6.99
FBA-23 2 AA cell battery case	29.99
FNB-80LI Extra 7.4v 1300mah lith ion batt	65.99
MH-57A4B Speaker/mic	30.99
NC-72B Extra wall charger	18.99
SU-1 Altitude/barometric pressure sensor	35.99
VC-27 Earpiece/microphone	30.99

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G-450A 10 sq ft antenna rotor/5-wire	259.99
G-550 12 sq ft elevation rotor/6-wire	299.99
G-800SA Med/hvy duty 450 degree 17sq ft/5-wire	339.99
G-800DXA Med/hvy duty 17sq ft/presets/5-wire	429.99
G-1000DXA HD 450 degree 23sq ft/presets/6-wire	519.99
G-2800DXA HD 450 degree 34sq ft/presets/6-wire	1139.99
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G-5500 11 sq ft azimuth/elevation rotor//2x6-wire	629.99
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GC-048 Mast clamp; G-2800	47.99
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GS-065 65mm thrust bearing; mast 1½-2½"	47.99
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C-1000 Interface cable; GS-232A - SDX/G5500	29.99
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VXA-700 Spirit 5w air handheld/2m FM ham	419.99
FNB-53 Nicad battery pack; Yaesu FRS .....Δ	1.99

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ALI EJ-40U Dig board; DR-135T/TP/235T/435T	99.99
ALI EJ-43U Digital board for DJ-596T	99.99
ALP Pathfinder 1.8-30+6m dig auto ant tuner	399.99
ALP Pathminder 1.8-54 dig 6pos switch/protect	149.99
AOR SDU-5500 Spectrum disp unit/PC interfc	999.99
B&W ACS-1.8-30 Continuous 1.8-30 stainless vee	339.99

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B&W ACS-5-30 5-30 Mhz stainless 65' folded dip	249.99
B&W AS-40 40/20/15/10m 40' trap dipole	149.99
B&W AS-160 160/80/40/20m 137' trap dipole	149.99
B&W AXS-80 80/40/15m 65' trap dipole ant	89.99
B&W BWDS-1.8-30 1.8-30 stainless 90' folded dip	299.99
B&W BWDS-65 4-30 MHz stainless 65' folded dip	319.99
B&W BWDS-90 1.8-30 stainless 90' folded dip	339.99
BEL 8018 #8 alum gnd wire .....**500** ft. Roll	69.99
BEL 9251 RG-8A (non-contam) ...**500** ft. Roll	279.99
BEN BY-3 lambic keyer paddle, gold plated	299.99
BUS 78-0040 90mm refractor telescope	369.99
BUS 78-0200 4.5" reflector telescope	269.99
CEL 11015 Celestar 8 telescope	999.99
CEL 11033 NexStar 5i telescope	899.99
CEL 52211 60mm wildlife zoom spot scope/tripod	169.99
CMT CQ-5M Dlx black QD trunk lip mt/coax	66.99
CMT GP-24S 2.4GHz 9.9db 3' 7" N base/rptr	89.99
COB 21LTD ST Sound Tracker AM Mobile CB	69.99
DAV 0271 Turbo Meter handheld dig wind indicator	79.99
DAV 7866 Weatherlink Mac interface/software	99.99
DIA F-23C1 148-154MHz 7.8db 15' comm base	149.99
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GAR GPS-III Plus Handheld/dash mt map GPS	299.99
GAR NavTalk Analog cell phone/GPS combo	169.99
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IAC 160m double **Bazooka** 248' antenna	214.99
IAC 160m double **Bazooka Shorty** 168' ant	199.99
IAC 160m-S 160m half sloper 127' antenna	139.99
IAC 80m double **Bazooka** 121' antenna	149.99
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IAC 40m double **Bazooka** 64' antenna	124.99
IAC 40m double **Bazooka Shorty** 40' antenna	119.99
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ICO BC-119-N21 Nicad/NiMH desk cgr; T81A	89.99
ICO BP-83 7.2v 600mah battery	79.99
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ICO BP-157A 7.2v 900mah battery	85.99
ICO BP-174 12v 600mah battery	79.99
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ICO IC-2GXAT/HP 7w 2m HT/batt/cgr/TTP	249.99
ICO IC-M3A 5w VHF marine handheld/AA nicads	149.99
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ICO UT-86 Tone squelch; IC-706 Mk II only	69.99
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KEN PB-34 9.6v 600mah 5w batt; TH-22ATH	89.99
KEN SP-950 Ext spkr/audio filters; TS-950SDX	149.99
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KEN TH-22ATH 5w 2m FM HT/batt/cgr/TTP	199.99
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KEN YK-107C 500 Hz CW filter; TS-50S	129.99
LDG Z-11 160-10m .1-30w auto ant tuner	149.99
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MFJ 493 32K char menu driven mem keyer	129.99
MFJ 498 Dlx CW keyboard/kyr w/disp/keyboard	169.99
MFJ 781 DSP filter for any TNC or controller	69.99
MFJ 9130B 9030 Xcvr/tuner/ps/ant package	229.99
MFJ 9140B 9040 Xcvr/tuner/ps/ant package	249.99

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MIR C-5022G 220 FM/SSB 50/200w amp/pre	369.99
MIR KP-1/10M 10m in shack preamp	99.99
MIR KP-1/220 220 in shack preamp	99.99
MIR KP-2/10M 10m mast mount preamp	119.99
MIR KP-2/220 220 mast mount preamp	129.99
MIR MP-3 420-450 5/50/150w PEP wattmeter	199.99
MSQ 2M-XP20 144-146 13.3db 10h/10v cross polar	169.99
MSQ 6M-9KHW 6m 50-50.4 12.7db 9el 49' 4" boom	499.99
MSQ 12M-4DX 12m 8.6db 4el 27' bm beam	399.99
MSQ 17M-3DX 17m 6.3db 3el 18' bm beam	399.99
MSQ 17M-5DX 17m 8.6db 5el 36' bm beam	499.99
MSQ 222-XP30 220 15.2db 15h/15v cross polar	169.99
MSQ EB-432 432 Eggbeater antenna	119.99
MSQ FAST MAST 20' extended port alum mast	129.99
NOO NOCC-3 3.1x42 night vision scope/illuminator	139.99
PAC Spirit-2 Std high performance controller	169.99
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SAN ATS-818CS AM/FM/SW port Rcvr/cassette	199.99
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SGC 52-34 RS-232 interface; SG-2000 Xcvr	119.99
SGC 53-04 PS-30 30A/40A peak unreg ps	299.99
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SGC 55-04 SG-103 2-28 MHz 90' 150w dipole	199.99
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YAE SP-5 External spkr w/audio filter	144.99
YAE TCXO-7 TCXO unit; FT-920	99.99
YAE VX-1R 500mw 2m/440 submini HT/lith ion	129.99
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X740 40M ADD-ON KIT X7 287.99v

DAIWA
CN801H SWR METER 134.99m
CS401N SWITCH/4 POS/N 119.99f

DAVIS
7852 RAIN COLLECTOR 69.99f
7400 INDOOR WX STATION 125.99v
7852 RAIN COLLECTOR 59.99m

DCI
223.53H 220MHZ FILTER 99.99f

DIAMOND
K412CNMO MOUNT 54.99m
K540KM MOUNT/COAX 53.99v
K550KM MOUNT/COAX 62.99v
K601M MOUNT 62.99cv
K601NMO MOUNT 59.99v
K702M MAG MT 44.99v
SPM-NMO MAG MT 39.99v
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GPS12XL GPS RCVR 199.99m
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0101020300 DC CABLE 35.99m

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CC11 ICOM MIC CABLE 27.99c
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NMO MAG MT *AS-IS* 32.99f
RTM MAG MT CB ANT 14.99v
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HAM IV ROTOR 479.99m
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AD51 CHARGE ADAPTER 9.99mv
AD56 CHARGE ADAPTER 12.99v
AD81 CHARGE ADAPTER 12.99f
AD87 CHARGE ADAPTER 7.99m
AG25 2M RX PREAMP 143.99f
AH2B HARDWARE/NO WHIP 159.99m
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BC119(31) NICAD DESK CHGR 89.99c
BC119N11 DESK CHGR 79.99v
BC127A CHARGER 18.99m
BC135 CHARGER 69.99m
BC144(01) CHARGER 80.99mv
BP157 BATTERY 59.99c
BP173 BATTERY 89.99mc
BP198 BATTERY 49.99m
BP209 BATTERY 44.99m
BP211 BATTERY 79.99mc
BP5 5W BATTERY 71.99f
CP13 CIG ADAPTER 34.99m
CP13L CIG ADAPTER 34.99m
CP17L CIG ADAPTER 19.99mf
CSWHH4 SOFTWARE/CABLE 44.99m
CSWR10 SOFTWARE 40.99c
HM118TN DTMF HAND MIC 53.99c
HM12 HAND MICROPHONE 67.99v
HM46 SPEAKER/ MIC 40.99cf
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HM77A MICROPHONE 109.99v
HM92A MICROPHONE 89.99m
HS10SA HEADSET 59.99m
HS85 HEADSET 79.99mv
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ICT2HSPORT HT 89.99m
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ICT22A 2M HT 179.99mcf
ICT90A 6M/2M/440 HT 229.99cf
ICV8 2M HT 112.99cf

This Used and Demo Equipment inventory is as of 3/16/2004
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IC2100H25N XCVR 149.99m
IC703 XCVR 599.99m
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LC137 CASE 34.99c
LC148 CASE 22.99c
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OPC184 POWER CORD 24.99m
OPC587 16 FT SEP CABLE 71.99c
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PS125 POWER SUPPLY 269.99mf
PS85 POWER SUPPLY 239.99m
RMK706 REMOTE SEP KIT 63.99c
R10(05) RCVR 269.99mcv
R10(05) RCVR 269.99m
R3(26) RVCR 299.99mf
R5(06) RCVR 179.99mfv
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MC58DM MIC 71.99v
MC60A DESK MIC 134.99v
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PS40 POWER SUPPLY 134.99m
SP23 SPEAKER 79.99v
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TS870S HF XCVR 1,799.99m
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WS8015U THERMOMETER 139.99mv

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1622 40-2M ANTENNA 79.99v
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B310G 2M AMP/PREAMP 161.99f
B34 2M FM 2/30W AMP 62.99v
B510G HT/100W 2M AMP 188.99m
C211G 220 AMP/PRE 299.99v
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ATS818ACS SWL RCVR/TAPE 199.99mc
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5417 SG-231 SMARTUNER 476.99cv
5547 QMS-2 SYSTEM 799.99m
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A portion of the Used/Demo inventory in Milwaukee

Please use these lists as a Guide

These *Used and Demo Equipment* lists are compiled from an actual inventory as of 3/16/2004. However, due to turnover from daily selling and trading, the actual items listed may or not be available.

All of our stores are linked on-line which allows real time access to our ever changing inventory. For your needs, you may call any of our locations to check for availability or to discuss an alternative with one of our salespersons.

The *Used and Demo Equipment Equipment* lists are also available on our web site and are updated regularly (**www.aesham.com**). Check it Out!

SANGEAN

ATS-404 Full Performance, Full Featured Digital, AM/FM Stereo Shortwave Receiver Continuous coverage (continuously tunes all shortwave bands and any frequency in between). AM reception with 9k/10k switch, FM plus stereo with earphones. Keypad entry and auto and manual search buttons, 45 memory presets, auto memory scan. Illuminated LCD display, tone control, lockswitch. Dual time (12/24 hour) clock and adjustable sleep timer with new Human Wake System. Carrying case and stereo earbuds included. Uses four "AA" batteries. 6.5"w x 4"h x 1.25"d.. **$79.99**

ATS-505 Professional Digital Multiband Receiver AM/FM stereo/shortwave and SSB reception • Continuous coverage (tunes all shortwave bands and any frequency in between) • Auto memory scan (45 presets, plays each in sequence) • Auto preset system, determines all memory presets based on signal strength of station • Fine tuning • 9/10kHz switch • Lockswitch • Tone control • Local/DX switch • Dual time clock, adjustable sleep timer and Human Wake System with repeating beep tone (volume increases every 15 sec.). Includes carrying case and earphones **$129.99**

ATS-818CS *(left)* **World Band Receiver with Programmable Cassette Recorder** 16 bands, continuous coverage 50kHz to 30MHz. AM/SSB/CW/FM modes; stereo via headphones, 45 memory presets. Tuning methods: Direct input, auto or manual scan, memory recall, rotary dial. AM wide or narrow filter, tone and RF gain controls, signal strength and battery indicator. Programmable cassette recorder, play and record LED indicator, auto-stop feature. Clock with dual time display, alarm and sleep timer. Uses seven "AA" batteries (not included). Includes AC adapter and external antenna adapter. 11.5"w x 7.75"h x 2.75"d, 5 lbs ..... Closeout **$199.99**

ATS-818 *(right)* **World Band Receiver** All features above, w/out cassette recorder.. Closeout **$169.99**

ATS-606A Compact Digital All-Band World Receiver *(left)* Continuous all-band coverage 153 kHz-30MHz. AM/FM (FM stereo with earphones). 54 memories, manual or keypad tuning, 1kHz/step fine tuning, scanning, LCD display. Dual time clock and sleep timer. 5.75"w x 3.5"h x 1.25"d. **$139.99**

ATS-909 FM-Stereo/MW/LW/SW PLL Synthesized Receiver *(right)* Five tuning methods: Direct frequency, Autoscan, Manual, Memory recall and Rotary, 307 memories. Stereo via earphones, SSB reception. MW 9k/10k switch. AM wide/narrow filter and FM mono/stereo selector. Dual time with three timers and sleep timer. Clock feature displays 42 city times. RF gain/tone controls. Lock switch, recorder output jacks, battery and signal strength indicator. Uses 4 AA batteries or 6V DC; AC adapter incl. 8.5"w x 5.375"h x 1.375"d, 1.9 lbs... **$249.99**

PT-50 ProTravel *(left)* Ultra compact, travel radio with world times • AM/FM stereo and continuous shortwave coverage 1.7–29.999kHz • Rotary world time zone dial LCD with backlight • Built-in 12/24 hour clock • Wake up to radio or buzzer • Adjustable sleep timer • Soft, hand-crafted leather case • 5"w x 3"h x 1"d, 10 oz **$79.99**

PT-80 ProTravel *(right)* Ultra-compact digital travel radio • AM/FM stereo and shortwave coverage 1.711–29.999kHz • SSB with shortwave dual conversion • Five tuning methods: direct frequency access, auto scan, manual, memory recall, and rotary • Auto tuning system with 45 presets • 1kHz step fine tune on SW bands, 50kHz fine tune on FM • Clock with 12/24 dual time, radio or buzzer wake-up and adjustable sleep timer • Soft, handcrafted leather pouch • AC adapter and shortwave antenna included • 7"w x 4"h x 1"d, 1 lb. 2 oz **$159.99**

ANT-60 Portable, wind-up, shortwave antenna for use with most shortwave radios **$13.99**

DT-200V Broadcast and TV Band Receiver Fits in shirt pocket or clips to belt. Covers AM and FM broadcast bands (FM stereo via headphone), plus the audio portion of TV channels 2 to 13. LCD display, up and down tuning buttons, auto-scan, 19 memories, automatic shut-off, built-in speaker. Belt clip and stereo earphones included. Uses two "AA" batteries. 4.375"h x 2.625"w x .75"d, 5 oz **$69.99**

YAESU

VR-500 High Performance Mini Receiver General coverage 100kHz-1300MHz (cell blocked) • CW, SSB, LSB and USB, AM and FM wide/narrow modes • Includes AM/FM broadcast, HF shortwave up to 16MHz, VHF/UHF TV bands, VHF AM aircraft band, and a wide range of commercial/public safety frequencies • Keypad entry • 1000 memory channels • 100 "skip" memories • 10 search memories • 100 dual watch memories • Priority • Powered by 2 "AA" alkalines or 9-16V DC • 2.2"w x 4.2"h x 1"d, 7 oz **$299.99**

FRG-100B High Performance Communications Receiver Covers 50kHz-30MHz – CW, SSB, AM modes; FM optional. 50 tunable memory channels and two band edge memories. Multi-function scanning. Adjustable SSB carrier offset, selectable AGC rate, noise blanker, all mode squelch, RF attenuator, twin 12 and 24 hour programmable clocks with on/off timer and sleep-timer, CAT system for PC control. Bright backlit LCD readout with adjustable control. 120/240 VAC or 12-14VDC @ 1.2A 9.375"w x 3.5"h x 9.5"d, 6.6 lbs *(See Price Guide for optional filters and high-stability oscillator)*..... **$599.99**

VR-5000 Multimode Scanning Receiver Continuous frequency coverage from 100kHz to 2.6GHz (cellular blocked) • Direct keypad frequency entry and a wide variety of scanning capability • 2000 memory channels, 100 memory banks with alphanumeric labels • Dual receive • Bandscope graphical activity monitor • "Smart Search" automatic memory loading feature • World clock with time zone map • 13.5VDC @ 0.7A • 7.1"w x 2.75"h x 8.0"d, 4.2 lbs..... **$599.99**

VR-120D Mini Communications Receiver Provides general coverage receive from 100kHz–1299.995MHz (cell blocked) on AM/FM wide and narrow modes; includes AM and FM broadcast, HF shortwave, VHF/UHF TV, VHF AM aircraft band, and a wide range of commercial and public safety frequencies. • Rugged outdoor-ready case • Ultra-long battery life • BNC antenna connector • 4-button operation • Easy access, wide-band coverage • Special "preset mode" aids in quick tuning • Super simple one-touch memories • Versatile 640 channel memory system • Option for AC or DC power with optional adapter/cable • Wide selection of scanning modes • 3.3"h x 2.3"w x 1"d, 6.9 oz..... **$199.99**

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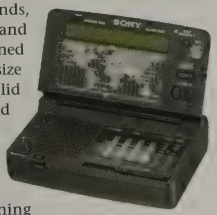
ICF-SW07 PLL synthesized • FM 76-108 MHz, SW 1621kHz-29.999 MHz, MW 530-1620kHz, LW 150-529 kHz • FM stereo at headphone jack • SSB/CW, AM synchronous detection • SW station call, my-memory tuning plus 4 other tuning methods: direct manual, scan or preset • 3000 frequency memories • One-push access to 8 major stations (BBC/VOA/DW, etc.) • Editable station labels • 24-city name/time display • Built-in timer • Clock with sleep timer and alarm • Requires 3 VDC or 2 "AA" batteries • Includes external active antenna module, AC adapter, stereo earphones, leather case • 5.3"w x 1.2"d x 3.6"d, 9.1 oz..... **$399.99**

ICF-SW11 Compact • 12 bands including FM stereo, MW, LW and SW bands 1–9 • Easy analog tuning with LED indicator • FM stereo headphone jack for private listening in noisy environments • DC in-jack for optional AC adapter • 6.5"w x 3.75"h x 1.3"d **$49.99**

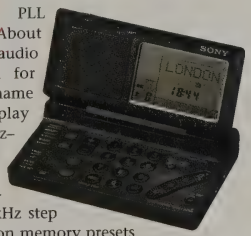


ICF-SW12 11 bands, including FM, AM and SW bands 1–9 • Designed for travel – compact size with protective lid • World time clock and universal time coordinator to calculate time in cities worldwide • Backlit LCD display • LED tuning Indicator for precise center-frequency indication and accurate tuning • Built-in alarm with convenient snooze button • Requires 2 "AA" cells • 4.3"w x 3.1"h x 1.2"d **$89.99**

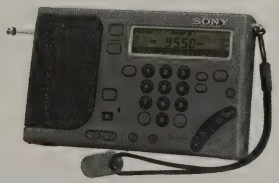
ICF-SW35 PLL synthesized, dual Conversion super hetrodyne • Range: AM (530-1710 kHZ), FM (76-108MHz) • FM stereo at headphone jack • Shortwave from 2250kHz-26.1MHz • UP/DOWN tuning buttons 1kHZ/5kHz tuning steps in shortwave • 50 memory presets (5 banks of 10 presets each) • 1 or 5 kHz step tuning on SW • Memory scan • Built-in digital clock with two wake times and 60-minute sleep timer • Dial illumination button, lock switch, attenuator • 2.5" speaker plus earphone jack • Includes cloth protector and SW guide • Requires 3V DC or two "AA" cells • 6.7"w x 4.5"h x 1.4"d, 16 oz **$89.99**

ICF-SW40 PLL synthesized • Analog/digital tuning • 14 bands • Range: LW/AM/SW (3850kHz-26.1MHz) and 76-108MHz FM (FM stereo-to-headphone jack) • 20 station memory presets • 1kHz step tuning • Built-in clock with dual standby function • 6.75"w x 4.25"h x 1.6"d, 15 oz..... **$119.99**

ICF-SW77 PLL synthesized • Electronic rotary tuning • Preset, 10-key direct, manual and scan tuning • 150kHz–30MHz and 76-108MHz (FM stereo-to-headphone jack) • 50Hz tuning steps • Clock display • 5-event programmable timer • Sleep timer • 162 memory presets with station name tuning • SSB/CW and AM synchronous detection • Backlit LCD display • World time scale • Large, 5"x 3" speaker • Requires four "C" cells • Includes 120V adapter, earphones, belt and wind-up antenna • 10.8"w x 6.8"h x 1.8"d, 3.3 lbs..... **$469.99**

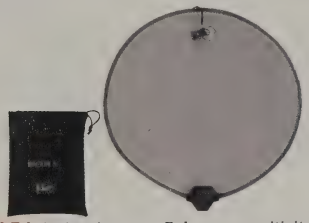


ICF-SW100S PLL synthesized • About the size of an audio cassette – ideal for travel • 24 city name and time display • Range: 150kHz–30MHz and 76-108MHz FM (stereo-to-headphone jack) • 1kHz step tuning • 50 station memory presets • Editable station labels • Auto scan, manual and 10-key direct access tuning • Built-in clock with sleep timer and dual standby • Includes stereo headphones, 120 VAC adapter, active antenna and soft carrying case • Requires 3V DC or two "AA" cells • 4.3"w x 0.9"h x 2.8"d, 8 oz..... **$349.99**

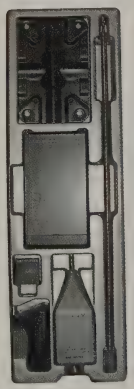


ICF-SW1000T PLL synthesized • 1 kHz step tuning • 130kHz–30MHz and 76-108MHz FM (stereo to headphone jack) • Built-in stereo cassette recorder with auto-reverse and timer record • SSB and synchronous AM detection • 32 memory presets • Built-in clock with alarm, dual standby and sleep timer • Requires 3VDC or 3 "AA" cells • Includes vinyl case, stereo earphones, hand strap and wind-up antenna • 7"w x 4.25"w x 1.6"d, 1 lb. **$399.99**

ICF-SW7600GR PLL synthesized • Manual and auto scan 1kHz step tuning • 10-key direct access tuning • 150kHz–30 MHz and 76-108 MHz FM • Dual conversion superhet • SSB/CW and AM synchronous detection • Multi-function LCD digital readout • Dial light and LED tune indicator • Built-in clock with sleep timer and dual standby functions • Record output jack • 9/10kHz MW tuning switch • External antenna jack • Large 3" speaker • Requires 6V DC or 4 "AA" cells • Hold button preventing accidental changes to presets • 100 station memory presets • World time/dual clocks • Includes vinyl case, wind-up antenna and handbook • 7.6"w x 4.75"h x 1.3"d. 1 lb., 5.5 oz..... **$159.99**



AN-LP1 Active Antenna Enhances sensitivity for clearer reception of even weak signals. • Light weight • Provides high sensitivity and noise reduction • Active antenna controller with rotary tuning • 19" loop that folds to 7" for portability • Easy to mount • Includes soft carrying case..... **$89.99**



AN-1 Outdoor/Indoor Active Antenna Improves LW/MW/SW reception from 150kHz to 30MHz. A low noise and interference reducing FET amplifier module, with a 59 inch telescopic whip, mounts outdoors or inside a window or attic. Includes a 39-foot coaxial cable which connects to a control box at the receiving position. An output lead with two alligator clips, or mini-plug, connects to the radio's antenna input. Uses 6 AAs or 9V AC adapter (neither are supplied). Closeout **$99.99**

AN-102 Indoor Active Antenna Three ways to use! For SW, a coupler cord from the antenna controller plugs into to radio's external antenna jack, or a special coupler cord from the controller clips onto radio's external antenna. For LW/MW, radio is positioned next to controller, coupling without a direct connection. Includes antenna module with 45" whip antenna, antenna controller box and two coupler cables. Uses 4 AA cells (not included). **$79.99**

ICOM

PCR-1000-02 BON PC Communications Receiver Connect the 1000-02 to a lap/desktop IBM-compatible for reception of a wide range of frequencies. *NOW* includes the Bonito software! Listen to favorite stations in the background while running other applications. 100% PC hardware external. Includes everything needed to connect to a PC: power supply, speaker, antenna and cable • 0.01-823.999MHz, 849.000001 to 868.999MHz, and 894.000001 to 1300MHz (cell blocked, guaranteed specifications 0.5-1300MHz, only) • WFM, FM, AM, SSB, CW • 1000 memories per file • Requires Windows® OS, 10MB free space, 16MB RAM, FD drive, RS-232C (38400+ bps) serial interface, 640 x 480 display **$374.99**

R-75 HF + 50MHz Receiver Covers a wide frequency range from 0.03-60MHz and includes 101 memory channels. All mode – USB, LSB, CW, RTTY, AM, S-AM and FM. Alphanumeric readout with digital bar S-meter. Conventional tuning plus numeric key pad for direct input. Features include high stability receiver circuit, superior dynamic range, 2-level preamp, noise blanker, synchronous AM detection, twin PBT capability, front mounted speaker, filter options and UT-106 DSP. Operates from 13.8V DC @ 1.1A, or supplied AC adapter. 9.5"w x 3.75"h x 9"d, 6.6 lbs..... **$529.99**

R-8500-02 Wide-band All-mode Receiver 0.1-2000MHz (cell blocked) with 10Hz resolution. All modes: AM, FM, WFM, SSB, CW. Direct keyboard entry. Versatile scan functions; 1000 tunable multi-function memories; 20 banks of 40 channels plus auto-write and skip areas. 20 scan edge memory channels store 10 sets of frequencies for programmed scan, plus priority. Selectable AGC, noise blanker, tone, squelch, record jack. Selectivity: 500 Hz, 2.3, 6 and 15kHz. RS-232C interface. Voice synthesized readout optional. 110/220V AC. 11.875"w x 4.875"h x 10.875"d, 16.5 lbs..... **$1499.99**

Look For This

NEW

& Check Out AES' Latest Additions.

AOR

AR-8200 MK III-B All-Mode Wide-Band Modular Handheld Receiver Improved! Wider coverage, a new TCXO for greater stability, improved sensitivity and intermod, enhanced S/N and better audio. • 100kHz–3GHz (cell blocked) • FM-w, FM-n, super narrow AM, AM-w, AM-n, USB, LSB, CW modes • 1000 memories (20 banks x 50 channels, 40 search) • Two VFO, twin frequency readout • Alphanumeric display • Telescopic antenna, detachable MW bar antenna • Band scope with save trace facility • Bar signal meter • Step-adjust, frequency offset, AFC • Optional memory expansion, CTCSS squelch/search, tone eliminator, 20 second record/playback and voice inverter • Noise limiter • Attenuator • Computer control and programming capability • Includes NiMH cells (charge while operating) • 2.4"w 5.7"h x 1.0"d, 0.75 lbs..... **$569.99**

AR-8600 MK II-B Multimode Mobile/Base Receiver Use as a mobile, base or portable. Powered from an external 12VDC supply. • All mode receive – including super narrow FM • Programmable tuning steps to 50Hz • RS-232 computer port (control software available online) • 530kHz– 3GHz (cell blocked) • 1000 memories (20 banks) • True carrier reinsertion in SSB modes • Improved front end with RF preselection of mid-VHF bands • Step adjust frequency, AFC • Noise limiter and attenuator • Versatile band scope with save trace facility • Twin frequency readout with bar signal meter • Separate volume and squelch controls • Write protect/keypad lock • Programmable scan and search • Flash-ROM memory • Slot card sockets • BNC socket for 10.7MHz • 5.9"w x 2.2"h x 6.9"d, 4.9 lbs **$899.99**

AR-3000AB All-Mode High Performance Professional Monitor 100kHz-2036MHz (cell blocked) • 400 memory channels • FM-w, FM-n, AM, USB, LSB, CW • Tri-conversion IF stage • Scans 50 channels per second rate • RS-232C port for computer control • 4 search banks • Manual tuning dial • BNC antenna connector • Scans 20 channels per second • 5.4"w x 3.1"h x 7.9"d, 2.4 oz.. **$1099.99**

SDU-5600 Spectrum Display Unit "Next generation" in spectrum display. Operates with AR-3000AB, AR8600MKIIB & others equipped with 10.7MHz IF providing selection of center frequency, receive mode, etc. The high resolution, 5" color TFT display provides clear, crisp graphics. Built-in "waterfall" display function, FFT signal processing and analysis and DSP. Remote control via PC and more. 8.7"w x 4.7"h x 7.7"d, 5.1 lbs..... **$1299.99**

MFJ ENTERPRISES, INC.

752C SSB/CW Audio Filter Pull out stations from noise and interference. Peak, notch, low or high pass control helps eliminate hetrodynes and interference. Filters tune 300 to 3000Hz; bandwidth varies from 40Hz to almost flat; notches to 70dB. Switchable inputs for two radios. Uses 9 to 18VDC. 10"w x 2"h x 6"d **$89.99**

8100W Regenerative 10' wire makes world-wide stations come in loud and clear. Tune international shortwave, SSB/CW, RTTY and packet. Covers 75-13M SW bands. Vernier drive tuning. Uses 9V battery, earphones or plug-in speakers. 7"w x 2.5"h x 6"d, 1 lb..... wired **$89.99**

956 LW/MW/SW Preselector/Tuner Improves reception of signals from 150kHz to 30MHz. Boosts signals while rejecting images, intermodulation, other phantom signals. 2"h x 3"w x 4"d..... **$49.99**

DRAKE

R-8B Communications Receiver Covers 10kHz-30MHz (35-55MHz, 108-174MHz w/optional VHF converter) • Dual VFOs • 1000 memories • Multi-function scan • AM/FM/RTTY/CW/LSB/USB modes • 5 voice bandwidth filters • Built-in receive preamp/attenuator and noise blanker • S-meter • Pass-band offset • Selectable AGC • Built-in speaker • Multiple antenna inputs • Sequential tuning • 3 selectable tuning step sizes • Keypad entry of mode & bandwidth • Selectable sideband • Synchronous AM detector • RS-232 computer control • Speaker/recorder connections • Multi-voltage power supply • 13.5"w x 5.25"h x 13"d, 13 lbs **$1499.99**

1590 VHF Converter *(left)* 35–55MHz and 108-174MHz **$269.99**

MS-8 External Speaker *(right)* for R-8B.... **$59.99**

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The Ultimate in Technology

GRUNDIG

Satellit 800
AM/FM/Shortwave Radio
"The Best Radio on the Planet"

55 years of outstanding performance and service establishes Grundig as a leader in consumer audio. Decades of making the Satellit series defines these radios as the benchmark in Shortwave technology. The Satellit's extensive frequency coverage includes Long wave, AM-broadcast and Shortwave, covered continuously from 100-30,000 KHz.; FM-stereo broadcast, 87-108 MHz.; VHF aircraft band, 118-137 MHz.

ENGINEERED FOR THE BEST POSSIBLE RECEPTION

- Single sideband (SSB) circuitry for listening to two-way communications, such as ham radio.
- Three built-in bandwidths, using electronically switched IF filters: 6.0, 4.0, 2.3 KHz.
- Synchronous detector for improved quality of AM and shortwave broadcast signals. Minimizes fading distortion and adjacent frequency interference.
- Selectable fast and slow AGC mode.
- High dynamic range, allowing for detection of weak signals in the presence of nearby strong signals.
- Excellent sensitivity and selectivity.
- Digital frequency display to 100 Hertz accuracy on AM, SW and VHF aircraft bands. 50 Hz when SSB used.
- A real tuning knob, like on traditional radios, but with ultra-precise digital tuning and with absolutely no audio muting when used.
- A modern, direct-frequency-entry keypad for instant frequency access and push buttons for fixed-step tuning.
- 70 programmable memories, completely immune to loss due to power interruptions. Memory scan feature.

LEGENDARY GRUNDIG AUDIO

- Outstanding audio with separate bass and treble tone control.
- FM stereo with headphones or external amplified stereo speakers.
- Includes high quality stereo headphones.
- Multiple audio outputs: line level output for recording, stereo headphone output.

FULL ANTENNA CAPABILITIES

- Built in telescopic antenna for SW, FM and VHF aircraft band.
- External antenna connections for the addition of auxiliary antennas, e.g. professionally engineered shortwave antennas; long-wire shortwave antennas; specialized AM broadcast band antennas for enthusiasts of AM DX'ing; FM broadcast band antennas; VHF air band antennas.

MORE HIGHLY DESIRABLE FEATURES

- Large, informational LCD display of operational parameters, measuring a massive 6 1/2" x 3 1/2". Easy to read and illuminated.
- Dual, 24 hour format clocks and dual programmable timers. An elegant, calibrated, analog signal strength meter.
- Auto backlight shutoff to conserve battery life.
- Low battery indicator.
- Operates on six internal "D" cell batteries or the included 110V AC adapter (220V AC adapter is available). Dimensions: 21" L x 8 1/2" H x 9 1/2" W. Weight: 14.5 lb.

YB 400PE

S350

No Power? No Problem!

The FR200 AM/FM/SW Emergency Radio has a built-in power generator, which means No Batteries Required!

Grundig's Best Portable AM/FM/SW Radio

• Digital Dual-Superhet tuner • 1.711-30 MHz SW range • SSB with fine tuning control • 40 random presets • Direct frequency entry • Manual and auto tuning • Built-in antennas • Supplementary SW antenna • SW antenna jack • FM stereo with headphones • LCD shows frequency, time and more • Dual 24 hour clocks • Alarm • Sleep timer • Battery operated or included AC adapter.

Dimensions: 7 3/4 W x 4 5/8 H x 1 3/8 D.

YB 400PE AM/FM/SW Radio

Grundig's AM/FM/SW Field Radio

• Sensitive analog tuner with digital frequency readout • 3-28 MHz SW range • Fine tuning control • RF gain control • Low-pass filter • Built-in antennas • External antenna jacks • Stereo line level out • Separate bass, treble control • Digital clock with alarm • Sleep timer • Headphone jack • Uses 4 D cell batteries or included AC adapter.

Dimensions: 10 1/2 W x 6 1/2 H x 3 1/2 D.

S350 AM/FM/SW Radio

Emergency AM/FM/SW Radio/Light

From the innovative minds at Grundig, even if the power is out and the batteries are dead, this potentially life-saving radio is ready to roll! • Four Band Tuning – AM/FM/SW1/SW2 • Built in power generator • Rechargeable battery pack • 2 1/2" diameter speaker • Emergency light • Fine tuning knob • DC jack, earphone jack • 3 AA batteries (not included).

Dimensions: 6 3/4 W x 5 3/4 H x 2 1/8 D.

FR200 AM/FM/SW Emergency Radio

GRUNDIG

G-2000A Porsche Design Shortwave Radio Designed for Grundig by F.A. Porsche, This radio has a titanium finish look with a genuine leather case that closes around the radio like a book and serves as a stand. • Ranges: (FM) 87.5–108MHz; (MW) 530–1710kHz; (SW) 2.3–7.4 and 9.4–26.1 MHz • Modes: AM, FM-stereo (with earphones) • Illuminated multifunction LCD display • Digital keypad and Up/Down manual tuning • 20 user-set station memorie • Clock with 12 or 24 hour selectable format, alarm (radio or buzzer) and sleep timer (10-90 minutes) • Built-in telescopic antenna for FM/SW and ferrite bar for AM • Includes a leather case, earphones, requires 3 AA batteries • 5.5" x 3.5"h x 1.25"d, 7.2 oz **$79.99**

MINIWORLD 100 Portable Pocket AM/FM/SW Radio Analog tuning, receives AM (530-1710kHz). FM stereo and six shortwave bands: 5.8-6.4, 6.9-7.5, 9.4-10, 11.65-12.15, 15-15.65 and 17.5-18.4MHz. LED tuning indicator. Includes a case, belt clip and earbud phones. Operates from 2 AAs (supplied). 2.75"w x 4"h x 0.75"d, oz **$29.99**

YACHTBOY 550 Sleek AM/FM radio and high-performance receiver, capturing 14 international shortwave bands. • 530-1710kHz AM, 88-108MHz FM, 1.711-29.999 MHz continuous shortwave • PLL-synthesized digital tuner • Direct keypad, up/down, scroll wheel, autoscan • 200 programmable station memory presets • Illuminated, multi-function LCD, simultaneously displays frequency and digital clock (selectable format, alarm, snooze and 5-120 minute sleep timer) • Signal strength and battery indicators • Built-in telescopic and internal ferrite bar antennas • Power backup • Shortwave/FM antenna input • Includes earbuds, stand, carrying case, shortwave guide and 3 AAs • 4.5"w x 6.5"h x 1.5"d, 10 oz..... **$99.99**

CLASSIC 960 AM/FM Stereo/ Shortwave World Receiver Updated classic combining vintage styling and craftsmanship with modern technology. Handcrafted, solid wood cabinet and fabric grill cloth. • 4" front speaker, two 3" side speakers, stereo CD/cassette • 530-1710kHz AM, 88-108MHz FM, 4.5-12.5MHz SW1, 11.30-22.20MHz SW2 • 15.5"w x 11.25"h x 7"d, 9 lbs. 10 oz..... **$149.99**

uniden

CB RADIOS

PC-78XL AM Mobile CB Radio Full PLL-synthesized 40 channels • DSC, Dynamic Squelch Control • Instant channel 9 • Microphone and RF gain controls • Delta tune control - Fine tunes received signal and reduces interference • Noise blanker and automatic noise limiter • PA/CB switch • Dimmer control • TX/TX LED indicators • Antenna warning LED - lights when high SWR condition is present • 7.25"w x 8.625"d x 2.375"h, 4 lbs. 3 oz.... **$94.99**

PC-78LTW Same basic features as the PC78XL with the addition of NOAA weather channel reception with weather alert..... **$99.99**

PC-68XL Bearcat Pro Series 40-Channel CB Radio Features a rugged front microphone, backlit control knobs, S/RF meter, a channel indicator and dynamic squelch control. Additional features include a channel selector, TX/RX indicator, instant channel 9, RF and mic gain controls and PA mode. 6.25"w x 2.125"h x 9"d, 3 lbs **$74.99**

PC-68LTW Same basic features as the PC68XL with the addition of NOAA weather channel reception with weather alert..... **$79.99**

PC-78 ELITE Professional 40-Channel CB with Ergonomic Pistol Grip Mic Represents the highest quality communications device for use in the CB radio service – no license required. Combines CB radio with weather radio and alert system. Includes mobile mounting bracket and DC power cord. • Instant Channel 9 • Quickview analog S/RF/SWR meter • Enhanced night vision display • Volume, squelch, RF gain, mic gain, delta tune and 7 weather channel select controls • (S/RF)/CAL/SWR, CB/WX/PA, NB/ANL, Bright/Dim, instant Channel 9, and dynamic squelch contol switches • 7.59"w x 8.89"d x 2.64"h, 4 lbs. 3 oz..... **$119.99**

PC-68 ELITE Professional 40-Channel CB with Ergonomic Pistol Grip Mic Same looks and features as the PC-78 Elite with exception of delta tune control and SWR in Quickview analog S/RF meter. • 6.2"w x 5.4"d x 2.1"h, 3 lbs. 11 oz **$99.99**

PRO-520XL Compact 40 Channel AM Mobile CB Radio 4W • Instant channel 9 access • 4-segment S/RF meter • TX LED • LED channel indicator • RF gain • PA switch • Automatic noise limiter • 4.5"w x 6.75"d x 1.375"d, 1 lbs. 10 oz..... **$54.99**

PRO-510XL Compact 40 Channel CB Radio Incorporates state-of-the-art microelectronics into a sophisticated Euro-styled 2-way radio. Front mounted microphone, ANL Switch, S/RF LED meter. 4.5"w x 1.375"h x 7.5"d, 3 lbs..... **$39.99**

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RECOMMENDED ANTENNAS FOR CB

COBRA

HGA-1000 Magnet mount base loaded mobile antenna with coax and connector..... **$19.99**

HUSTLER

HQT A 55" top loaded whip with Mirror Mount bracket. Comes with 12' cable with PL-259 connector. Chrome with a white coil **$27.99**

HQ-27M A 55" top loaded whip with Trunk-lip Mount. Comes with 15' cable and PL-259 connector. Chrome with a white coil..... **$36.99**

LARSEN

NMO-27C Base loaded mobile, less mt. **$32.99**

NMO-TLP Low-profile trunk mount for NMO-27C. 17' coax and PL-259 ..... **$29.99**

NMO-MM NMO-27C magnet mount. Comes with 12' coax and PL-259 connector.. **$32.99**

SOLARCON

A-99 Base Station Antenna. Three-piece fiberglass design uses a half wave over a quarter wave section, and is tunable. Entire 17 ft. 8 in. length radiates producing about 3 dB gain **$64.99**

GPK-1 A-99 ground plane kit. Adds 30% more power gain and lower angle of radiation **$39.99**

WILSON

W-1000 5' base loaded mobile antenna. Available in three mount configurations. All come with 18' cable and PL-259 connector.

ROOF thru-hole mount..... **$57.99**

TRUNK mount **$65.99**

MAGNET mount..... **$76.99**

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CB RADIOS

148NW ST **Full Featured AM/SSB Mobile CB Radio** 12W PEP SSB RF output • 4W AM RF power (FCC max. allowed) • 120 channels • Dual conversion AM receiver • SoundTracker™ system • NightWatch™ dimmer control • USB/LSB/AM • Digital channel indicator • RX/TX indicators • Switchable noise limiter & blanker • RF-gain control • Hi/low tone switch • PA capable • SWR indicator • Instant channel 9 • 7.25" x 2.25" x 8.625", 6 lbs. **$179.99**

19DX III **AM Mobile CB Radio** Compact design • 40 channels • Combination S/RF meter • 4W RF output (max. allowed) • Instant channel 9 switch instantly switches from any channel to Emergency Channel 9 • TX indicator • CB/PA switch selects CB operation or PA operation • Mobile bracket • 4.563"w x 1.75"h x 7.25"d, 21 lbs **$49.99**

29WXNW ST **Full-featured Weather Band CB Radio with Illuminated Front Panel** 40 channels, AM • Instant channels 9 and 19 • 7 NOAA weather channels with weather alert tone • 4W RF power output • SoundTracker™ system • Tactile controls • Dimmer control • Switchable automatic noise limiter and noise blanker • SWR calibration • PA capability • NightWatch™ illuminated front panel • 7.2w" x 2.2h" x 8.6d", 6 lbs..... **$129.99**

HH-ROAD TRIP **SoundTracker® 40 Channel CB Handheld with Antenna** Keep in vehicle for 24-hour emergency access, to communicate between vehicles, and to receive the latest weather information from 10 NOAA channels. SoundTracker® system cuts noise up to 90% and 4W of power gives up to 4 miles range. High/low power switch reduces power consumption, extending battery life. Operates on 9 AA alkaline or NiCads or off vehicle battery with the included DC cord with cigarette lighter plug. Included magnet-mount antenna provides maximum range and flexibility. 6.75"h x 2"w x 1.75"d **$79.99**

20 XTR **Xtreame Street Communicator CB Transceiver** Features neon blue front panel illumination and illuminating antenna when transmitting. Includes 4-pin screw-on dynamic mic, antenna, mobile mount bracket and hardware. • 40 channels • LED display • 4W (AM) • CB/PA switch • Power/volume and squelch controls • Magnetic mount antenna base • 6.25"w x 1.75"h x 6.5"d, 2 lbs.... **$79.99**

FRS RADIO

PR-3000-2DX *MicroTalk®* **GMRS/FRS Two-way Radio** X2 POWER TECH provides increased power for up to 6 miles and stronger penetration of buildings, cars, dense woods and other obstacles. 22 channels (7 FRS/GMRS, 7 FRS, 8 GMRS) • 38 privacy codes • Scan (channel/privacy code) • Vibra Alert® Silent paging • Call alert (10 selectable tones) • Select-able roger beep • Hands-free operation (VOX) • Selectable high/low power (GMRS) • Backlit LCD • Battery/power saver • Key lock • Belt clip and wrist strap • Requires 4 AAA batteries (per radio, not included). 2.25"w x 6.5"h x 1"d ..... pair **$79.99**

FRS/GMRS RADIOS

T-5950-2/AA 22 Channel GMRS/FRS Rugged Motorola quality with clear communications whether skiing or hiking rough terrain. Built to withstand harsh environments and provide extra communications range (up to five miles) depending on terrain and conditions. • 1W maximum transmit power • 7 GMRS/FRS 1W channels • 7 FRS 0.5W channels • 8 GMRS 1W channels • 8 NOAA weather channels • 99 codes, 10 audible call tones • Hands-free VOX • Multiple scanning functions • VibraCall® alert • Keypad lock • Backlit display • Removable swivel belt clip..... pair **$79.99**

T-4500-2 22 Channel GMRS/FRS Offers the ultimate in small size GMRS radios, compares to the smallest cell phones or pagers. Weather resistant design. Up to 2-mile range • 500mW maximum transmit power • 7 GMRS/FRS channels • 7 FRS channels • 8 GMRS channels • Scanning • Audible call tone talk confirmation tone • Audible low battery alert • Uses AAA alkalines pair **$29.99**

FRS/GMRS RADIOS

IC-F21GM FRS/GMRS Radio *(left)* Perfect for sportsmen, families, clubs, hobbies, or when you need more power than an FRS radio offers. Choose from 15 higher power GMRS channels, 7 channels shared with FRS. Communicate with any FRS radio on these channels. All channels are pre-programmed internally allowing out-of-box operation, only a simple license required. Apply on the FCC web site, complete instructions included. 462.550-467.725MHz (UHF) coverage • 4/2/1W • CTCSS/DTCS signaling for more privacy • Scanning and "Tone Find" seek active channels • Meets various MIL-STD requirements • Drop-in charger included • 2.1"w x 5"h x 1.5"d, 10.6 oz .. **$149.99**

IC-4088A **FRS FM Transceiver** *(right)* Professional quality. Features 14 FRS channels, 38 group codes and enhanced conversation privacy with its built-in voice scrambler. Communication range is approximately 2 miles in wide open space and you get approximately 28 hours of operation from 3 AA alkaline batteries (not supplied). Splash resistant construction for outdoor use. Convenient rechargeable NiCad battery and rapid charger available, as well as optional headsets and microphones. 2.375"w x 4.563"h x 1.563"d..... **$89.99**

49MHz FM PERSONAL COMMUNICATORS

Low power, 1/4 mile average range • Dual conversion super-heterodyne receiver provides crisp, clear transmission • Use for group communications • Push-to-talk or voice activated - talk-to-transmit • No license required • Channels: 49.830MHz, 49.845MHz, 49.890MHz, 49.860MHz, 49.875 MHz

MX-49SX A single channel unit including a lightweight adjustable headset with retractable whip antenna and boom microphone with windscreen. Uses only one of first 3 channels (see above) • LED power indicator • battery charger jack • Range up to 1/4-mile • Uses two "AA" alkalines or rechargeable nicads • 5"w x 2.5"h x 1"d, 9 oz..... **$29.99**

MX-49FX The unique earphone and mic pick up voice vibrations from the ear canal for transmit audio and also provide received audio • Will not interfere with helmets • 5 selectable channels • Built-in antenna gives up to 1/8-mile range • Remote PTT button and channel selector. Uses 3 "AA" batteries. 5.5"w x 3"h x 1"d 6 oz..... **$49.99**

HANDHELD SCANNERS

BC-60XLT-1 Handheld Scanner *(left)* 30 programmable channels, 10 bands – cover 29-512MHz • LCD channel display • Programmable chain search • One-touch weather • Lockout • Memory backup • Keypad lock • Scan delay • Manual channel access • Track tuning • Keypad lock • Uses four AA alkaline or nicad rechargable batteries, or operates on AC with included 110V AC adapter • 2.625" w x 6.75"h x 1.5"d, 10.5 oz **$89.99**

BC-80XLT Handheld Scanner Looks similar to 60XLT • 50 programmable channels, 11 bands, 5 banks - cover 29-956MHz (cell blocked) • 5 priority channels • On-touch weather • Manual channel access • Bands search • Full frequency LCD display • Uses four AA alkaline or nicad rechargeable batteries, or operates on AC with included AC adapter • 2.625"w x 6.75"h x 1.5"d, 10.5 oz..... **$119.99**

BC-245XLT TrunkTracker II Handheld Scanner *(middle right)* 300 programmable channels, 12 bands including Aircraft and 800MHz (covers: 29–956 MHz - cellular blocked) • Trunk tracking technology: scan and search, lock out, delay, and 10 trunk scan list • Programmable search • Memory backup • Manual channel access • Pre-programmed service search • Channel lockout • 10 priority channels • Rechargeable NiCad battery and wall charger • 2.5 "w x 6"h x 1.75"d, 12.5 oz..... **$209.99**

SC-180B Sportcat *(middle left)* Hear car and pit crews at auto races, the cockpit at air shows, or use it as a traditional scanner to keep up with emergency personnel. 100 programmable channels, 12 bands/800 MHz (cell blocked)/Air, 10 banks • 10 priority channels • Twin TurboScan™ and search • Manual channel access • Instant weather • Full frequency, alpha-numeric LCD • Rechargeable NiCad and wall charger • Includes sports frequency guide, AC adapter, rubber antenna, belt clip and earphone • 2.5"w x 1.625"d x 6"h, 11 oz. **$169.99**

SC-200 Sportcat Same as above with 200 channels, cloning capability and CTCSS..... **$199.99**

BC-250D Digital-Capable* Handheld Scanner *(right)* Continuous coverage from 25MHz to 1.3GHz (cell blocked) • AM/FM/NFM/WFM modes • TrunkTracker III - EDACS, Motorola, E.F. Johnson • 30 trunking channel indicator annunciators • 1000 channels, 10 banks • 12 service searches • CTCSS/DCS • S.A.M.E. weather alert • Alpha tagging (bank channel and search range) • PC programming and control • Holographic, backlit display • Backlit keypad • 2.5"w x 6.9"h x 1.75"d, 14 oz..... **$269.99**

**Requires installation of BCI25D card ($239.99) in order to monitor APCO P-25 digital systems.*

Service Questions?
414-358-4087
Milwaukee, WI

BC-296D APCO P-25 Digital-Capable, Handheld Scanner 25MHz to 1.3GHz continuous (cell blocked) • AM/FM/NFM/WFM modes • 1000 channels, 10 banks • S.A.M.E. weather alert • TrunkTracker III (EDACS®, Motorola®, E.F. Johnson) • APCO 25 digital-ready (trunked at 3600 and mixed mode digital communications) • 12 service searches • CTCSS/DCS • Alpha tagging (bank channel and search range) • PC programming and control • Holographic, backlit display • Backlit keypad • 2.56"w x 6.02"h x 1.77"d, 12.38 oz **$549.99**

BEARCAT SCANNERS

BC-244CLT 30 programmable channels, 10 bands • Full freq. LCD • Channel lockout • Mem. back-up • Manual channel access • Alarm clock • One-touch weather • 8"w x 5.5"d x 3"h, 1 lb. 6 oz..... **$99.99**

BC-248CLT AM/FM alarm clock radio with 20 presets • 50 programmable channels, 10 bands • One-touch weather • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual access • Delay • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 6 oz **$109.99**

BC-278CLT AM/FM Alarm Clock Radio with 20 presets • 100 channels, 12 bands • 800MHz coverage (cellular blocked) • One-touch weather with S.A.M.E. weather alert • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual channel access • Programmable delay • Data skip key • Programmable search • Programmable service search • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 7 oz..... **$139.99**

BC-780XLT Continuous Band Programmable Scanning Radio AM/FM/WFM • 500 channels (10 priority), 10 banks • 25-511MHz, 806MHz-1.3GHz (cell blocked) • Preprogrammed service searches • Full frequency, backlit LCD • TrunkTrackerIII • S.A.M.E. • SmartScanner™ • Clone feature • Alpha tagging • CTCSS/DCS • PC control • Base or mobile • Record channel or ID (up to 1000 IDs) • 7"w x 6.56"d x 2.375"h, 41.96 oz ..... Closeout **$269.99**

BC-785D Digital-Capable* Base/Mobile Scanner (looks similar to above) 25MHz-1.3GHz (cell blocked) • TrunkTracker III (EDACS®, Motorola®, E.F. Johnson) • S.A.M.E. • Full frequency LCD • 1000 channels, 10 banks • AM/ FM/WFM modes • 12 service searches • Alpha tagging • CTCSS/DCS • Control channel only mode • Clone feature • PC programming/control • Record functions • Backlit controls • 7"w x 6.5"h x 2.375"d, 14.9 oz **$289.99**

**Requires installation of BCI25D card ($239.99) in order to monitor APCO P-25 digital systems.*

BC-350A 50 channel, 11 band mobile/base scanner with Aircraft and instant weather • Super Turboscan™ @ 100 channels/sec. • Full frequency LCD display • Private channels, 20 programmable and scannable • Police channels • 10 programmable fire and emergency channels • Marine channels • Band search • Lockout channels • Mounting bracket, AC adapter, telescoping antenna cigarette and DC cord • 5.25" x 6.8" x 1.625", 1.6 lb..... Closeout **$89.99**

BC-350C 800MHz Mobile-Operation Scanner Hear police, ambulance, fire, amateur radio, public utilities, weather, and more! • 25-54, 108-174, 406-512, 806-956MHz (cell blocked) • 6 preprogrammed service banks • 13 preset search bands • 50 user-programmable "private channels" • 150 memories • Preprogrammed service search • Search lockouts • Turbo search @ 100 channels/sec • Backlit LCD • Includes mounting bracket, AC adapter, DC cord with plug • 5.25"w x 6.5" x 1.625", 1.6 lbs **$99.99**

BC-796D APCO P-25 Digital-Capable Scanner 25MHz-1.3GHz continuous (cell blocked) • AM/FM/WFM • 1000 channels (10 banks, 10 priority) • S.A.M.E. • APCO 25 digital-ready (trunked at 3600 and mixed-mode digital communications) • TrunkTracker III (EDACS®, Motorola®, E.F. Johnson) • Control channel only mode • 12 service searches • CTCSS/DCS • Alpha tagging (bank channel and search range) • Alpha display • Clone feature • PC programming/control • Record functions • 1000 beep alerts • Base/mobile • Full-frequency LCD • 7"w x 6.5"h x 2.375"d, 50.8 oz **$549.99**

BCT8 BearTracker™ Warning System with 800 MHz TrunkTracker III 25-54, 108-174, 400-512 and 806-956MHz (cell blocked) • Trunking (Motorola® analog trunking, EDACS®/EDACS® SCAT, LTR®) • 250 user-programmable memories • BearTracker™ warning system - alerts to activity on highway patrol frequencies within 3 miles • Preprogrammed service search and highway patrol frequencies by state • Priority operation • 100 channel/sec scan speed • Search lockouts • Backlit LCD • 7.06"w x 2.44"h x 6.1"d, 21 lbs. 7 oz.... **$179.99**

ICOM

SCANNERS

R-3-26 Communications Receiver Provides wideband capability from 0.5–2450MHz (cell blocked). Features 2" TFT color display, or switch to mono. Receive favorite TV shows, scan for wireless cameras like those in race cars. Use as a monitor with a wireless camera. Display to a large monitor or recording device with A/V output. Signal strength and band scope functions assist in finding action. Includes 450 alphanumeric memories, CTCSS, attenuator. Li-ion battery offers easy charging, light weight, and up to 27-hour use with mono LCD • PC programmable • 2.4"w x 4.72"h x 1.28"d, 10.6 oz **$349.99**

R-5-06 Super Wideband Handheld Receiver Covers 495kHz to 1309.995MHz (cell blocked), AM, FM, WFM modes. Preprogrammed TV and shortwave memories. Listen to AM/FM broadcast radio, police, fire, military, aircraft, amateur bands, and more. Crisp, clear audio. Large, backlit LCD shows frequency, operating and battery status, signal strength and alphanumeric naming (1250 memories – 200 auto-write scan and 25 scan edge pairs). • DMS • CTCSS/DTCS • Internal bar antenna • Weather alert • PC programmable/cloning • Weather resistant • Rechargeable NiCad and DC jack. 2.25"w x 3.4"h x 1"d, 6 oz . **$199.99**

R-10-05 General Coverage Pocket Scanning Receiver 500kHz-1300MHz (cell blocked). AM, SSB, FM wide or FM narrow modes. Programmable tuning steps. On-screen spectrum display, 1000 non-volatile memory channels in 18 banks of 50 channels. Scan by bank, mode, or program. Alphanumeric characters can be entered to identify channels and banks. Noise blanker and auto noise limiter. Auto frequency control (AFC) • Edge-lit display • 24-hr clock with timer • PC program. capability • Adjustable LCD contrast • Signal indicator • Power-saver • NiCads and wall charger (also will use alkaline or DC) • 2.3"w x 5.1"h x 1.2"d, 10.9 oz **$299.99**

BC-895XLT "TrunkTracker" • 300 channels (10 priority), 12 bands (Aircraft and 800MHz), 10 banks • VFO control, covers 29-511, 806-956MHz (cell blocked) • TurboScan™ • One-touch weather and alert • Manual channel access • CTCSS • Trunk search • Scan lockout/delay • RS-232C port • Signal strength meter • Auxiliary tape output • Automatic store • 30 trunking channel indicator annunciators • 3-day memory backup • Programmable search • Lockout • 10.875"w x 3.625"h x 7.5"d, 3.5 lbs **$199.99**

R-20 Wideband Handheld Receiver Covers 0.15-3304.9999MHz (cell blocked) • SSB/CW/AM/FM/WFM modes • Preset TV sound and shortwave frequencies • 1250 memories – 1000 memory, 25 scan edge, 200 auto-write scan • Multiple scan functions (30 channels/second high speed scan capability and Voice Scan Control) • Built-in IC audio recorder with selectable recording time up to 4 hours • Auto squelch function • CTCSS/DTCS/DTMF decode • Attenuator and RF gain control • Noise blanker and automatic noise limiter • Backlit keypad and dot-matrix LCD with programmable channel names (up to 8 characters) • Internal bar antenna for MF reception and BNC antenna connector • CI-V PC control capability • Li-ion battery pack • 2.28"w x 5.5"h x 1.22"d.

This device has not been approved by the FCC. It may not be sold or leased, or offered for sale of lease, until approval of the FCC has been obtained.

AIRCRAFT

A-23 Airband HT Easy to operate featuring large, clear LCD. Record and play back conversations with built-in recorder. Large capacity rechargeable NiMH battery is standard. Convenient for carrying with supplied belt clip. Water resistant, JIS-4 grade, allows safe operation in rain. 5W (PEP), 1.5W (carrier) output • All 760 "COM" (108MHz-136.975 MHz) and weather channels • VOR navigation (rx only) • 200 alphanumeric memories • PC programmable • 2.28"w x 4.22"h x 1.13"d, 12 oz..... **$399.99**

MARINE

IC-M3A Mini Hand-held Marine VHF Radio *(left)* All US, international and 10 weather channels with alert • Independent channel 16 • Full function and priority scanner • Dual and tri-watch monitors channel 16 while operating another • 1/5W • Backlit display • Water resistant • Includes 6 NiCads and wall charger • 2.25"w x 5.5"h x 1.75"d, 14.4 oz ..... Closeout **$149.99**

IC-M1V Marine Handheld *(right)* All US, Canadian, international and weather channels with alert • Normal and priority scan • "Tag" scan system • 5W • Dual / tri-watch • PC programmable • Alphanumeric • Waterproof • 1400mAh li-ion battery • 2.1"w x 5.5"h x 1.18"d, 9.9 oz..... **$199.99**

IC-M32 VHF Marine Handheld Transceiver *(middle)* All International, USA, Canadian and WX channels • Weather alert and auto weather scan • Instant channel 16 • 5W • Convenient tag scanning • Dual/tri-watch • Backlit 9-button keypad • Easy-to-see LCD with backlighting • Battery life indicator and 2-step power saver • Squelch and volume level indicator • Rugged, waterproof (equivalent to JIS Grade 7) • Includes NiCad pack, desktop charger, AC adapter, antenna, belt clip and hand strap • 2.4"w x 5.3"h x 1.6"d, 12.7 oz..... **$149.99**

IC-M302W02 VHF Marine Transceiver All International, USA, Canadian and WX channels and alert • Instant channel 16 • 25/1W output (at 13.8VDC) • Dual/tri-watch • GPS connection • Large backlit LCD shows channel numbers and names up to 10 characters • Built-in DSC capability (send a formatted distress message) • High sound pressure speaker • External speaker connection • Rugged, waterproof (JIS Grade 7) • Includes hand microphone, mounting bracket kit and DC power cable • 6.1"w x 2.6"h x 5.2"d, 1.8 lbs..... **$159.99**

IC-M402W02 Marine VHF Radio All US, Canadian, international and 10 WX channels with alert • Normal/priority scan • Dual/tri-watch • 2-digit LCD with scrolling channels • 4-level backlighting • Key illumination • DSC capability • Built-in SC-101 selective calling • GPS repeater (with added GPS) • "Tag" scan • 25W/1W • Waterproof • 6"w x 2.6"h x 5.5"d, 2 lbs **$199.99**

M-710 (21) **SSB Marine Transceiver** Rugged, 150W, 1136 channels with 160 user-programmable memories, PC programmable, alphanumeric readout on large LCD.General version without 2182kHz alarm, marine bands only . **Special Order $1399.99**

M-802 DSP Marine SSB Transceiver Large backlit LCD with dot matrix characters, and built-in digital selective calling. Also boasts one-touch e-mail and GPS input. • 0.5–29.99MHz rx • 1.6–2.99, 4–4.99, 6-6.99, 8–8.99, 12-13.99, 16–17.99, 18–19.99, 22–22.99, 25–27.5 tx • J3E (SSB), J2B (AFSK) F1B (FSK), A1A (CW), M3E (AM, rx only) • 1355 channels • 20/60/150W • 9.2"w x 3.7"h x 9.1"d, 10.3 lbs. • 8.3"w x 4.4"h x 3.1"d, 1.2 lbs. (controller) • 4.4"w x 4.4"h x 3.1"d, 0.8 lb. (speaker).... **Special Order $1749.99**

uniden

MARINE

ATLANTIS-250 Hand-held 2-Way VHF Marine Durable, reliable for any marine activity • All US, international and Canadian marine channels • Waterproof (JIS4/ CFR46) • 5/1W output, switchable • Instant channel 16/9 • Triple watch • All N.O.A.A. channels with WX alert • Backlit LCD and keypad • Memory channel scan • Flexible rubber antenna • NiMH and alkaline capability..... **$99.99**

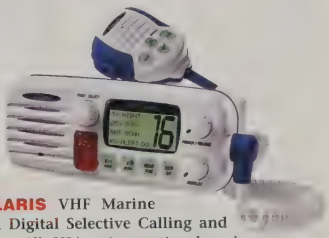
VOYAGER Ultra Compact VHF Handheld Marine Radio All USA, Canadian and international channels • All N.O.A.A. channels with S.A.M.E. WX alert • Triple Watch Plus™ • Channel 16/9 • Memory scan • 1/5W transmit • Backlit keypad and LCD • Rubber grips/seal • Li-ion battery • AC/DC adapter and charging cradle • Flexible rubber antenna • Meets JIS7 waterproof specs • 3.8"h x 2.4"w x 1.3"d, 8.8 oz **$159.99**

MYSTIC 5W output • DSC • Integrated mapping WAAS GPS • Send, receive and mark directly on map accurate vessel or individual position • Includes CD of all U.S. street data, up to 32MB can be loaded at any time • Large VGA display for all charting, mapping and radio functions • Submersible • Supplied complete with large Li-ion battery, AC/DC chargers and charging cradle • 6.88"h x 2.62"w x 1.38"d **$339.99**

SOLARA 25W VHF Marine Radio Full-featured • All USA/international channels • Instant channel 16 • 10 weather channels • Selectable 1/25 Watt output • High visibiity LED display • Front mounted speaker for improved sound quality • Transmit LED indicator • Weather resistant housing, microphone and connector **$99.99**

OCEANUS-DSC Full Featured VHF Marine Radio All USA/international/Canadian marine channels • N.O.A.A. weather scan and alert • Triple Watch Plus™ - monitor emergency channel 16 and 9, another user selectable channel plus Weather Alert • Ultra-compact rugged construction saves space, allows for convenient mounting, and withstands the harshest conditions • Quik Command™ one-touch channel 16/9 key on new, durable, rubber grip mic • Backlit keypad • Memory scan • 1/25 W transmit • LCD and dimmer • External speaker jack • One switch PA operation **$139.99**

OCEANUS VHF Marine Radio *(not pictured)* All USA/international marine channels • 25/1W output • Compact, rugged construction • QuikCommand™, one-touch channel 16/9 key on mic • Rubber grip mic • Backlit keypad • Triple watch • Memory scan • Weather alert/scan • LCD and dimmer • External speaker jack • PA ..... Closeout **$129.99**



POLARIS VHF Marine with Digital Selective Calling and Hailer All USA, international and Canada channels • Instant channel 16/9 • 1/25W transmit • Wireless mic capability – works with up to two wireless mic accessories • GPS input capable • Backlit LCD and keys (including microphone) • S.A.M.E. weather alerts • Triple Watch Plus™ • 2-way hailer • Memory and weather scan • Assign channel names • Group call feature • Calling radio position indications with external GPS • Waterproof to JIS4/CRF46 standards • 3.07"h x 7.24"w x 6.61"d, 2.65 lbs..... **$179.99**

YAESU

AIRCRAFT

VXA-700 *"Spirit"* Airband, 2M Transceiver (4 transceivers in one!) AM airband, 2M amateur, NAV-COM, 5W output, VOR/CDI display (121.5MHz emergency) • NOAA WX with alert • FM broadcast band receive (88-108MHz) • Submersible at 3' for 30 minutes • Magnesium die cast case (superior RF noise shielding plus ruggedness) • High res, backlit, dot matrix display • 190 alphanumeric memories • Back lit keypad • Supplied with 1300 mAH Li-ion battery, 117V charger, headset adapter, antenna and belt clip **$419.99**

VXA-150 DELUXE Pro V Professional-grade, compact, airband handheld transceiver. Transmits at 5W (PEP), 1.5W carrier output on 118-136.975MHz "COM" band, and receives 108-117.975MHz "NAV" band. Features exclusive two-mode display with upright or inverted viewing when on a belt, NOAA weather monitoring, 8-character alphanumeric display, 50 memories (100 "book"), antenna adapter and NiMH battery. 2.3"w x 4.3"h x 1"d, 12 oz..... **$299.99**

VXA-210 Pilot Professional-grade airband transceiver with VOR navigation display meeting MIL-STD 810 ruggedness specs. 5W (PEP) transmit, 1.5W carrier output. Receive on 118-136.975 MHz "COM" and 108-117.975 MHz "NAV" bands. The VOR navigation display features DVOR/ CDI modes. Receives all NOAA weather channels. Has 150 memories, and 8-character alphanumeric display. Includes headset adapter, intercom, and external PTT switch. PC programmable. 2.3"w x 4.3"h x 1.2"d, 12.2 oz .. Closeout **$299.99**

VXA-210 DELUXE Same as above, with addition of antenna adapter and NiMH battery **$354.99**

KENWOOD

MARINE

TKM-707 SSB Marine Transceiver A high-performance unit designed to meet stringent marine operation demands. Utilizes heavy-duty, rustproof, aluminum chassis and highest quality parts to maximize performance • 150W RF output • 2-23MHz marine operation with 500kHz-30MHz general receive • 198 memories • Multi-scanning • Emergency alarm built-in ..... Special Order **$1249.99**

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GARMIN

GPS-12XL Personal Navigator™ for Extreme Outdoor Enthusiasts 12-channel receiver with external antenna for fast, accurate position fixes in tough conditions like tree canopy and urban obstructions. Rugged, compact case ideal for boaters, hunters or hikers. 500 user waypoints with alphanumeric name and user comments. 20 reversible routes of up to 30 waypoints each. TracBack™ navigation turns a track log into a route back home. Nine waypoint alarms. Over 1000 track log points, position averaging, emergency erase, and cloning features. Up to 12 hours operation on 4 "AA's"..... **$219.99**

NAVTALK™ Navigator™/Cellular Mobile Combines GPS with cellular technology into one handheld unit. During travel, location is displayed in real time on a built-in map. Send exact position to another NavTalk for display. **Cell phone:** Customized phone book • One-touch speed dial • Built-in pager • One-touch emergency dial (subscription required) **GPS:** Interstates with exit info, cities, airports, etc. Plug into a PC and download from optional MapSource™ CDs..... Closeout **$169.99**

RINO-120 GPS-Enabled Handheld for FRS and high-performance GMRS • Two-way communications up to 2 miles using FRS (up to 5 miles, using GMRS) • 0.5/1W (FRS/GMRS) • 14 channels, 38 squelch codes, and VOX • Voice scrambler • Vibration mode for "silent" calls • 12-channel, GPS receiver provides position accuracy of less than 10' when enabled • Peer-to-Peer positioning to transmit GPS location, showing distance and bearing • Navigation features include extensive waypoint storage, TracBack, multiple position formats and built-in trip computer • Basemap of the Americas (major cities, highways, thoroughfares, rivers, lakes, coastlines, borders, and railways) 8MB internal memory accommodates downloadable cartography from GARMIN's MapSource CD-ROMs • Uses 3 "AA's" • 8.5 oz..... **$249.99**

GPS-72 Low-cost solution for land/marine navigation providing precise positioning using WAAS data. • Built-in quad helix antenna • High-contrast, gray-scale display ("large number" option) • Backlit display/keypad • Permanent data storage • Water resistant • 500 name and graphic waypoints, 50 reversible routes • Lat/Lon, UTM, Loran TDs, Maidenhead, MGRS, and user grid formats • Arrival, off-course, clock and proximity alarms • 1 MB memory for MapSource™ data • Trip computer with odometer, stopped time, moving/overall average, total time, max. speed..... **$159.99**

IQUE-3600 PDA With Integrated GPS The power of Palm OS integrated Que 5, Garmin GPS and mapping software. Look up appointments or contacts and get routing to their location with voice-guidance! New ARM processor enhances battery life, screen re-draw, graphics, and audio • SD expansion slot for storage • Flip-up, integrated GPS patch antenna for optimal reception • MP-3 player • Memo playback • Voice recorder • Rechargeable internal li-ion battery • 32 MB memory • Soft cover, metal stylus • Choice of Americas or Atlantic MapSource™ • High res, color, 2.16"w x 3.24"h display • 2.8"w x 5"h x 0.8"d..... **$549.99**

eMAP DELUXE Electronic Map 12-parallel-channel GPS and internal patch antenna with basemap showing cities, interstates, exits, etc. • Large, backlit screen • Zoom keys with one-hand rockerpad operation • Trip computer with odometer, stopped/moving/total time, moving/overall average and max. speed • Map page with direction, speed, time, distance/time to go, trip distance • Save up to 500 sites • 2000 track points • 12 hours on 2 AA's • Interface cable, 8MB card, wrist strap • 2.4" x 5.5" x 0.8", 6.7 oz Closeout **$199.99**

eTREX *(left)* 12-parallel-channel GPS receiver and internal patch antenna packaged in a waterproof case. Side operating buttons for larger display. Simple menus and logical operations make position marking easy. • Compass or map navigation • Zoom keys • 500 user waypoints with name and graphic • 1 route with 50 waypoints • Resettable trip computer • Auto track log, 10 saved tracks to retrace a path • Up to 22 hours of use with 2 AA alkalines • 4.4"h x 2"w x 1.2"d, 5.3 oz..... **$99.99**

eTREX SUMMIT™ Hiking Companion *(right)* Similar to the eTrex but includes a barometric altimeter and electronic compass..... **$199.99**

GPS-III PLUS Personal Navigator™ Dash mount. Road maps without plug-in cartridges. Selectable vertical or horizontal display. Dedicated keys for zooming from 0.2–360 miles, diagonal panning, auto start/stop timer, average/max. speed recordings. Rocker keypad, backlit LCD, full featured moving map plotting, user selectable navigation screens for compass or graphic highway guidance. Download data from MapSource CDs Closeout **$299.99**

GPS-V DELUXE *(left)* North American turn-by-turn navigation with auto-routing. Display prompts and audible alerts for turns, course deviation, and distance. Built-in, routable basemap provides detail for interstates, exits (USA only), highways, rivers and lakes, plus popular metro streets. Maps from MapSource MetroGuide provide residential detail. Look up services, points of interest. View address, phone and map location. 500 user waypoints • 20 reversible routes • Trip computer with odometer, stopped time, moving/overall average or total time, max. speed • Auto track log, 10 saved • 4 AA's for up to 25 hours use • Permanent data storage • Includes mount, cigarette lighter adapter, PC cable and City Select software (no internet access required) • 2.32"h x 5.0"l x 1.62"w, 9 oz..... **$399.99**

ST PILOT III DL StreetPilot III Deluxe *(right)* Portable GPS with auto routing and voice prompts alerting to upcoming turns. Shows position on a detailed color map. Automatically calculates a route from current location and displays turn-by-turn directions. Included MapSource™ City Navigator™ software provides more map detail, and, with downloaded detail, look up points of interest and view address and phone information. Portable for use in multiple vehicles. Also includes: StreetPilot III satellite navigation system • Dash mount • 12V adapter cable with speaker • 128MB data card • USB programmer for faster map downloads... **$699.99**

ST PILOT 2610 Street Pilot 2610 GPS Unit The best in automotive navigation right at your fingertips. Choose a destination using StreetPilot's touch screen or remote control unit and the route will be automatically calculated with turn-by-turn directions and voice prompts. • Built-in basemaps containing state and country boundaries, lakes, rivers, streams, airports, cities, towns, coastlines, state and interstate highways, local thoroughfares and secondary roads within metro areas, federal interstate highway exit service information • Accepts downloadable map detail from Garmin PC-based MapSource City Navigator CD-ROM (included), which provides street-level detail, addresses, listings of nearest restaurants, hotels, ATMs and more • Alphanumeric remote control • Bright, automotive-grade 8-bit, 256-color LCD with automatic dimming backlight and 305 x 160 pixel, 3.3"w x 1.7"h, touch screen • 5.6"w x 3.2"h x 2.0"d..... **$999.99**

Software compatible with some Garmin GPS units can be found under "Multi Media."

GARMIN

GEKO-101 Perfect for navigational novices. Features such as one-touch waypoint marking make it a snap to use. Easily maneuver from one waypoint to the next using its 250-waypoint storage capacity with symbols, and trace along a route with PanTrack™. • Five buttons for one-hand use • High-contrast display – 64 x 100 pixels with LED backlighting • 12-hour battery life on 2 AAA's • Automatic 3,000 trackpoint storage with PanTrack™ and TracBack® • 30 min. submersion at one meter • 1.9"w x 3.9"h x .96"d, 3.1 oz.. **$99.99**

GEKO-201 Allows more waypoint and route storage, as well as available PC and external power connectivity. It also offers built-in WAAS capability. Has a user-configurable trip computer and 10,000 trackpoints, as well as PanTrack™ and TracBack®. • 10 feet accuracy or less with WAAS • Five buttons for one-hand use • 64 x 100 pixel, high contrast display • 12-hour battery life on 2 AAA's • 500/20 x 125 waypoint/route storage • Automatic 10 track storage • 30 min. submersion at one meter • Includes four interactive, outdoor games • 3.9"h x 1.9"w x .96"d, 3.1 oz..... **$139.99**

FORERUNNR 201 GPS/Personal Training Device Designed for athletes as well as recreational walkers or runners. Offers an easy-to-read display, adjustable wristband and integrated GPS sensor to calculate speed, distance and pace. Virtual Partner™ feature allows input of time, distance and pace goals, and then shows if you're ahead or lagging. With GPS navigation capabilities, mark specific locations, look up and navigate to these points, retrace steps or reverse normal route for variety. Garmin provides downloadable performance-tracking software to analyze athletic activity over time. Data can be transferred to a PC, for plotting and analyzing in order to make changes in regimen. Includes wristband, A/C charger with PC interface, manual and quick start guide. 3.3"w x 1.7"h x 0.6"d, 2.75 oz..... **$149.99**

MAGELLAN
Navigation & Communications

The Meridian™ – Magellan's new premier line of rugged GPS handheld receivers, designed with serious navigators in mind.

MERIDIAN™ GOLD *(left)* Expanded memory capacity for downloading maps with optional SD cards in 8, 16, 32 and 64MB • Large backlit display for easy map viewing • Rugged rubber armoring and high impact plastic for use in the harshest environments • Supports several languages including: English, French, German, Swedish, Finnish, Spanish, Italian, Portuguese, Dutch • Save Track-to-Route • Satellite status display • Built-in help • North-Finder with sun/moon positions • Sunrise/set calculator • 16MB database of U.S. cities, interstate/state highways, political boundaries, major waterways and airports • Store 20 routes, 500 waypoints and 2,000 trackpoints • Vertical profile of track and horizontal profile (MapSend Topo USA required) • Address Search (requires any MapSend software) **$249.99**

MERIDIAN™ PLAT *(right)* Meridian™ Platinum Possesses all features of the Meridian Gold and adds electronic compass and barometer that tracks barometric pressure like a weather station **$349.99**

MERIDIAN COL Meridian Color Top of the Meridian line of superior, rugged GPS receivers. Shows location on the industry's first full-color screen in a handheld GPS. Comes preprogrammed with extensive 16MB map, including highways, major roads, parks, navaids, waterways, airports and more. • Vivid color, 120 x 160 pixel display • Superior tracking even in dense foliage and urban environments • Rugged design with high-impact housing of wrap-around rubber – it floats! • Infinitely expandable via industry-standard Secure Digital memory cards • Up to 13 hours of continuous battery • Use optional MapSend® CDs to map out trips • Includes 2 AA batteries, PC cable, lanyard • 6.5"h x 2.9"w x 1.2"d, 8.5 oz..... **$399.99**

All SporTracks feature 12-parallel-channel, WAAS receiver • Satellite tracking with advanced Quadrifilar Helix antenna • 2.3" x 1.4" display • Backlit screen and keypad • 500 waypoints • 20 routes • 2000 track points • 76 datums • Indefinite data back-up, stored in non-volatile flash memory • Multi-language • Impact resistant, waterproof case

SPORTRAK Sporty, GPS system with worldwide database of major cities. Includes worldwide city points-of-interest. • 1 MB built-in memory for additional points • 9 screens: Status, Position, Nav 1, Compass, Nav 2, Plot, Road, Speed, Time • Alarms for proximity, arrival, anchor, cross track, error and GPS • Satellite status • Northfinder sun/moon positions • Sunrise/set, best fish/game calculators • Up to 14 hours use on 2 AA's • 5.6"h x 2.2"w x 1.3"d, 6.1 oz..... **$169.99**

SPORTRAK MAP A sporty, pocket-size, GPS system that includes mapping • 2MB database with interstate/state highways, parks, waterways, airports and cities • 4MB memory for downloads • 7 user-configurable screens: Map, Compass, Large Data, Position, Road, Speedometer, Trip Compass • Full 3D topo support • Alarms for proximity, arrival, anchor, XTE and GPS • Save-track-to-route • Satellite status display • Built-in help • Northfinder sun/moon positions • Sunrise/set, best fish/game calculators • Horizontal profile and address search • PC cable • 2 AA batteries for up to 14 hours • 5.6"h x 2.2"w x 1.3"d, 6.1 oz . **$199.99**

SPORTRAK PRO Pocket-sized GPS with 32MB memory • 9MB database (interstate/state highways, major roads, parks, waterways, airports, cities, and marine navigation aids) • 23MB memory for downloads • Full 3D topo support • 7 user-configurable screens: Map, Compass, Large Data, Position, Road, Speedometer and Trip Compass • Alarms for proximity, arrival, and anchor • Save-track-to-route • Satellite status display • Built-in help • Northfinder with sun/moon positions • Sunrise/set, best fish/game calculators • Horizontal profile and address search • PC cable • 2 AA batteries for up to 14 hours • 5.6"h x 2.2"w x 1.3"d, 6.1 oz . **$269.99**

SPORTRAK COL SportTrak Color Vibrant, high resolution, color screen plus enhanced features in a handheld GPS with 32 MB built-in memory. • 9MB North American basemap (roads, waterways, parks, airports, marine navaids, buoys, etc.) • 23MB memory for additional downloads • Accuracy in all orientations – 3-axis electronic compass orients you no matter how you hold it • Built-in barometer • Waterproof and built tough • Includes 2 AA batteries, PC cable, lanyard • Easily fits in a pocket, 5.6"h x 2.2"w x 1.2"d, 6.8 oz..... **$329.99**

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4640 South Polaris Ave. Las Vegas, NV 89103 702-647-3114 1-800-634-6237

ADI

SINGLE BAND HANDHELDS

The AT-201HP and 401HP are advanced single band HT's with 40 memory channels, programmable band scan, auto repeater offset, frequency or channel display and more. The units have rugged metal cases with backlit keypads and displays. 12V batteries come standard, providing 5W of RF power. • MARS/CAP capable • 40 memories • CTCSS enc/decode • Programmable band and memory scan • DTMF paging • Dual frequency watch • Auto repeater offset • User selectable frequency or channel display modes.

AT-201HP 2M Handheld Transmit: 144–148MHz • Receive range: 130–179MHz • 4.25"h x 2"w x 1.3"d excluding battery pack **$99.99**

Available Accessories

CHA072 Wall charger for RBP072, **CHA120** Wall charger for RBP120/RBP22, **PCA145** Cigarette lighter cable, **RBP120** 12V 700mA NiMH, **SD911** Rapid charger, **SLC200L** 5W carrying case

FREE ITEMS included with some radios. See Price Guide for details.

ALINCO

AMATEUR RADIO'S VALUE LEADER℠

SINGLE BAND HANDHELDS

DJ-196T 2M HT 5W output • 135-174MHz rx • 40 multi-function memory channels • MAR/CAP capability • Alpha-numeric display • CTCSS tone encode/ decode and DCS • S-meter • Auto dialer • Cable cloning • PC programming capability • Theft alarm • Experimental insect repel • Back lit keypad • 4.9"h x 2.2"w x 1.6"d, 13.2 oz..... **$139.99**

DJ-296T 222 HT Same as DJ-196T except has a range of 222-225MHz **$179.99**

DJ-496T 440 HT Same as DJ-196T (above) except has a range of 430-450MHz..... **$149.99**

Available Accessories

EBC6 Mobile HT bracket, **EBP48N** 9.6V 700mA 5W NiCad battery, **EBP50N** 9.6V 700mA 5W NiMH battery, **EBP51N** 9.6V 1500Ma 5W NiMH battery, **EBP56N** 7.4V 1000mAh lith-ion battery, **EDC111** Charger for EBP56N, **EDC16B** Cigarette lighter cable and filter, **EDC36** Angle plug power cable with filter, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC88** Rapid charger, **EDC97** NiMH quick charger, **EDH30** Dry cell battery case, **EME12** Headset/earphone/ microphone with VOX, **EME13** Headset/ear bud/ microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ERW4** PC cable, **ESC36** Soft case for EBP48N

DJ-S40T Pocket-sized UHF HT Covers 420-450MHz, with receiving capabilities beyond the range. 500mW power output – can be increased to 1W by using optional NiMH or external DC supply. • 100 memories • Call channel and several scan modes • Newly designed case that conceals the speaker but provides loud, clear audio • 38 CTCSS en/decode settings (decode standard) • 4 tone bursts, making it usable for repeaters in many parts of the world • Large, easy-to-read, illuminated display • Experimental "mosquito repelling feature" • Theft alarm function • Cloning capability • Use with crossband transceivers (base or mobile dualband) as a "remote mic"..... **$89.99**

Available Accessories

EBC6 Mobile HT bracket, **EBP52N** 3.6V 500mAh NiMH battery, **EBP53N** 6.0V 500mAh NiMH battery, **EBP54N** 3.6V 1500mAh NiMH battery, **EDC105** Drop-in NiMH charger without power supply, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC93** Wall power supply for EDC105, **EDH31** Dry cell battery case, **EME12** Headset/ eaphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **EMS8Z** Remote speaker mic, **ESC37** Soft case

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The Xtreme Communications Xperts!

DM-330MVT Communications Grade Switching Power Supply

Alinco's Xperts have reinvented the power supply! Xtremely quiet with a patented noise shift circuit, but we'll be surprised if you ever need to use it. It's small, lightweight and powerful! 30A continuous, 32 A peak output, but weighs less than 5 lbs. Variable output from 5 ~ 15 VDC, memory output setting, lighted V/A meter, front panel cigar (10A) and quick-connect (5A) terminals, rear panel high-current connections. Ripple less than 15 mV p-p. ***Xtra versatile, use for travel, station or test bench.***

EDX-2 Automatic Wire Antenna Tuner

Xtreme users want to get on the air fast! Ground it, connect a wire and plug it into your rig. Tunes random length wires from 9 ~ 80 feet. Covers 160 ~ 10 meters. (minimum 40 feet of wire needed for use on 160m) Compatible with DX-70 and DX-77 transceivers. Made for indoor/outdoor mounting, use at home, mobile or in the field. Outputs directly to a wire or whip antenna only (no coax output).

DJ-X2000T Multimode Wide Range "Intelligent" Receiver

Monitoring Xcitement is found in the "Intelligent Receiver" from 100 KHz ~ 2150 MHz* with 2000 memory channels, alpha-numeric labeling, receives AM, WFM, NFM, LSB, USB, CW and FM stereo.** On-line "help" feature, 20 scan programs, computer programmable (download free software from Alinco website), Channel Scope™ display, Transweeper™, RF frequency counter, digital sound recorder, CTCSS decode, 2 level attenuator, field strength meter, ***instant "flash tune" and many Xtras!***

DJ-X3TD Multimode Wide Range Communications Receiver

Xceptional and unique! Small but powerful. Receives 100 KHz ~ 1.3 GHz*, AM, NFM, WFM. 700 memory channels, dry cell battery pack, four scan modes, stereo FM reception.** ***Download free control software from www.alinco.com***

DJ-X10T Multimode Wide Range Communications Receiver

Xtraordinary reception from 100 KHz ~ 2 GHz* with 1200 memories, alphanumeric display, Channel Scope™ Display, receives WFM, NFM, USB, LSB, AM and CW. Internal HELP feature, seven scan modes, clock with on/off function, "new user" and "eXpert" operating modes, BNC antenna connector, cloning function, ***and an Xtensive array of custom settings.***

www.ALINCO.com

*Cellular blocked in USA. Unblocked versions available to qualified users, documentation required. **Optional stereo headphones required. Specifications subject to change without notice or obligation

ALINCO

AMATEUR RADIO'S VALUE LEADER™

DJ-S11T Sub-Miniature VHF HT TX/RX: 144–148 MHz • 340 mW output • 20 multi-function memories plus 1 call • Encoder installed (50 tones) • Illuminated display • Use 3 AA or NiCad battery • Pivoting antenna • 4"h x 2"w x 1"d, 6.5 oz..... **$79.99**

Available Accessories

EBC6 Mobile HT bracket, **EDC78** Wall charger (not alkaline), **EDH18** 12V/5.5V DC cigarrette lighter plug, **EME12** Headset/earphone/microphone with VOX, **EME13** Headset/earbud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ESC27** Soft case

DUAL BAND HANDHELDS

DJ-596T MK II 2M/440MHz Dual Band HT The first Amateur HT to support optional digital voice communications. • 5W output on both bands with standard NiMH battery • Wide or narrow FM • Digital voice optional • Extended receive capabilities • CTCSS/DCS encode/decode • Three scan modes • Work and save in memory any number of "odd split" transmit/receive offsets • Illuminated keys and display • Large display shows alphanumeric designations for each of the 100 memories • Theft alarm and experimental "mosquito repelling sound" • 9 autodial memories • ± 2.5ppm crystal • External terminal control can output 5 VDC @ 5mA from mic jack, can be used by experimenters to control external devices • Operates on 6-16VDC, battery charges while on external source • 4.9"h x 2.2"w x 1.6"d, 13.2 oz ... **$209.99**

Available Accessories

EBC6 Mobile HT bracket, **EBP48N** 9.6V 700mAh 5W NiCad battery, **EBP50N** 9.6V 700mAh 5W NiMH battery, **EBP51N** 9.6V 1500mAh 5W NiMH battery, **EBP56N** 7.4V 1000mAh lith-ion battery, **EDC111** Charger for EBP56N, **EDC16B** Cigarette lighter cable and filter, **EDC36** Angle plug power cable with filter, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC88** Rapid charger, **EDC97** NiMH quick charger, **EDH30** Dry cell battery case, **EJ47U** Digital board, **EME12** Headset/earphone/mic with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker mic with volume control, **ERW4** PC cable, **ESC36** Soft case for EBP48N, **SW596** Windows programming software

DJ-V5TH VHF/UHF Dual Band FM HT Full 2 meter and UHF Amateur band coverage • Standard high-power 700 mAh NiCad battery pack – up to 5W output • 3 output settings • Expandable receive range 76–999MHz (cellular blocked), includes wide FM capability • Split-band operation capability • Eight different tuning steps • Alphanumeric display – up to 6 characters • 200 memory channels plus two call channels • CTCSS encode/decode • DTMF squelch • 4 different European tone bursts • 4 scan modes and 5 programmable scan banks • MARS/CAP capability • Auto-dial memories • Auto high temperature protection feature • SMA connector • Wire cloning capable • Accepts up to 13.8V DC input • 4.5"h x 2.25"w x 1.75"d, 13 oz.... **$209.99**

Available Accessories

EBP46N 9.6V 600mAh 5W NiCad battery, **EDC16B** Cigarette light cable with filter, **EDC36** Angle plug power cable with filter **EDC37** 13.8V power cable **EDC43** Cigarette lighter cable, **EDC91** Quick charger, **EDH29** Dry cell battery case, **EME12** Headset/earphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/ microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker mic with volume control, **EMS8Z** Remote speaker mic, **ESC35** Soft case for EBP45N/46N

DJ-C5T Credit Card Sized 2M/440MHz Dual Band HT 300mw output • TX: 144–147.995 & 420–449.995MHz • RX: 118–173.995 and 420–449.995MHz • 50 memories • CTCSS tone enc/dec standard • Volume/squelch control • Keylock • Auto power off with Morse Code alert • Mic/earphone jack • TX lamp • Free offset • Reverse monitor • Scan function with skip setting • Multi Euro tone bursts • Battery save & channel display modes • AM aircraft receive with expanded VHF wideband reception • Rechargeable 3.8V lithium-ion battery • 2-hour "snap-in" charger • Soft case • 3.75"h x 2.25"w x 0.43"d, 3 oz **$149.99**

Available Accessories

EDC16B Cigarette light cable with filter, **EDC36** Angle plug power cable with filter, **EDS7** Microphone adapter, **EME17** Boom earphone microphone, **EME18** Earphone, **EME20** Tie-pin mic/earphone, **EMS49** Mini lapel speaker microphone, **EMS50** Speaker microphone, **ESC34** Soft case with belt clip

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ICOM

2M SINGLE BAND HANDHELDS

IC-2GXAT/HP 2M Transceiver 7W output @ 13.5 V DC • 144-148MHz rx (136-174MHz expandable) • 40 mem. channels • 700mAh battery • Auto repeater operation • Tone scan • DTMF redial and five auto dial memories • 350 mW audio • Selectable DTMF speed • Built-in PL enc/dec • 35mA current drain • 2.2"w x 4.9"h x 1.4"d, 12.9 oz..... Closeout **$249.99**

Available Accessories

AD25 Battery charger adapter, **AD28** Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BP130A** Battery case, **BP157A** 900mAh 7.2V battery, **BP174** 600mAh 12V battery, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HS51** Headset/VOX, **HS94** Earpiece headset, **MB30** Mobile or wall bracket, **OPC288** Mini DC power cord, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

FREE ITEMS included with some radios. See Price Guide for details.

IC-T2H SPORT 2M Handheld 6W @ 9.6 VDC • 136-174MHz receive • 43 memories • CTCSS enc/dec standard, with pocket beep and tone scan • 8 programmable keys • 5 DTMF memories, with 32-digit codes and redial • 10 weather channels • Direct keypad frequency entry • Back-lit LCD • Auto repeater and "intuitive" help functions (display directs user what to do next) • 2-step power save • Monitor and lock functions • One-piece, die-cast aluminum chassis and polycarbonate casing • Meets MIL SPEC C/DE for shock and vibration • Includes battery holder • Alkalines required • 2.3"w x 5.5"h x 1.3"d, 14.8 oz... **$99.99**

Available Accessories

AD81 Adapter for BC11911, **BC110A** Wall charger, **BC119N01** Desk charger, **BC122A** AC adapter for BC133, **BC133** Drop-in trickle charger, **BP194** "AA" alkaline battery case, **BP195** 700mAh 9.6V battery, **BP196** 1050mAh 9.6V battery, **CP12L** Right angle cigarette cable with filter, **CP17L** Right angle cigarette cable for charger, **CST2** DOS programming software, **CSWHH4** Windows software with cable, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS94** Earpiece headset/use with VS1L, **LCF3SWIVEL** Leather case with swivel, **LC145** Carrying case, **MB68** Extra standard belt clip, **MB74** Spring loaded belt clip, **MB87** Swivel belt clip, **OPC254L** Right angle mini DC cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

With the IC-T2H SPORT and a PC you can download up to 40, stored, pre-programmed frequencies, such as in a repeater directory, from your PC directly into the SPORT. PC-to-SPORT and SPORT-to-SPORT cloning requires optional software and cables.

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Xtreme Xcitement!

DJ-V5TH, 2m/440 HT*

Great 2m/440 TX & RX, xtended RX range from 76 ~ 999 MHz, wide band FM, alpha display, 200 memories, CTCSS & DCS encode+decode, 5 watts output, compact size, 4 scan modes, split-band ops, auto-dialer, 13.8 VDC direct input. *Xcellent performer!*

DJ-196T (2m), DJ-296T (222 MHz), DJ-496T (440 MHz) HT

Backlit keys, alpha display, 40 memories, CTCSS and DCS encode+decode, autodial, 13.8 VDC input, and more! High-power battery is standard. *Xtra handy!*

DJ-S40TD 440 MHz HT

Pocket HT features 500 mw output on AA cells, up to 1 watt using an optional NiMH battery. 100 memories, CTCSS encode+decode, SMA antenna, great audio, theft alarm and more! *Xtremely small but packs a punch.*

DJ-C5T 2m+440 "Credit Card" FM HT

Awesome "credit card" size, internal speaker, 50 memories, CTCSS encode+decode, AM airband RX, 300 mw output, soft case, 600 mAh lithium ion battery, includes rapid charger! *This tiny performer Xcells.*

DR-605TQ 2m+440 FM Mobile/Base

Xtra value! 50 watts VHF/35 watts UHF, 51 memories/band, crossband repeat, 430 ~ 449.995 range allows for satellite comms, dual watch. *Check the LOW price!*

DR-135T/TP MKII (2m), DR-435T MKII (440 MHz), DR-235T (222 MHz) Mobile/Base

DR-135 includes AM Airband RX. All models have 100 memories, ignition key on/off, theft alarm, large 7 character alpha display, optional internal TNC can be used for packet or APRS™, 9600 packet mode, front data/GPS input, rear DSUB9 connector, H/M/L power out, autodialer, CTCSS and DCS encode+decode, backlit mic, *Xtra rugged!* Accepts optional digital voice communications board.

DJ-596T DJ-596T MKII 2m+440 HT

100 memories, alpha channel labels, NiMH battery, CTCSS and DCS encode+decode, WFM+NFM, theft alarm, 6 ~ 16 VDC input, illuminated keys and display, autodialer, full coverage of both bands, Xpanded receive; optional digital voice communications board and more! *Xtend your abilities!*

DR-620T 2m+440 Mobile/Base

Xceptional features! Remotable head, speaker faces up or down, changeable color alpha display, 200 memories, H/M/L output, V/U, V/V, U/U, WFM and AM Air Xtended RX, TCXO, theft alarm, *options include TNC or digital voice module, remote mount kit.*

DR-MO6TH 6m/20 watts FM Mobile/Base

"Magic band" Xcitement with local and DX FM contacts, simplex or through repeaters. *Includes CTCSS encode and 100 memories.*

DX-70TH (100w) HF+6m Mobile/Base/Portable

160 ~ 6m Amateur band TX in all modes, Xtra coverage RX from 150 KHz ~ 30 MHz and 50 ~ 54 MHz. Remotable face, 100 memories, 2 VFOs, speech compressor, SSB, CW and AM narrow filters, fullbreak-in, multi-function control and MUCH more! *Optional Xcessories include EDX-2 wire antenna tuner & DM-330MVT power supply.*

DX-77T HF Base/Portable

Xcellence at a great price! 160 ~ 10 meter Amateur band TX all modes; 500 KHz ~ 30 MHz general coverage RX. Clean, clear audio, low noise floor from DDS, 100 memories, easy to operate. *Speech compressor, CTCSS encode for 10m FM operation, CW filter.*

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Specifications subject to change without notice or obligation. Performance specifications only apply to amateur bands. APRS is a registered trademark of Bob Bruninga, WB4APR
*Cellular blocked in USA. Unblocked versions available to qualified users, documentation required.

ICOM

IC-T22A 2M Handheld 3W output @ 13.5 V • 4.0 - 16 VDC input • 136-174MHz rx • Auto low power/power saver (15mA drain) • Remote control microphone (optional HM-75A) • 80 memory channels (40 with alpha display) • VHF/UHF air band receive • Auto repeater function • Backlit display • Die cast aluminum frame and heat sink • 7.2V battery included • Optional tone scan • 2.3"w x 4.3"h x 1.1"d, 10.9 oz..... **$199.99**

Available Accessories

AD56 Battery pack adapter/rapid charger, BC119N11 NiCad/NiMH desk charger, BP170 Battery case, BP172 950 mAh 4.8V battery, BP173 600mAh 9.6V battery, BP180 600mAh 7.2V battery, CP12 Cigarette cable with filter, CP12L Right angle cigarette cable with filter, HM128 Earphone + mic, HM131 Speaker/mic/earphone jack/clip, HM46 Slim-line speaker mic, HM46L Slim-line speaker mic with right angle plug, HM54 Heavy-duty speaker mic, HM75A Remote control mic, HS10 Boom mic/headset, HS10SA VOX unit, HS10SB PTT switchbox, HS85 Headset with VOX, HS94 Earpiece headset, LC125 Case for T22A with BP170/71/72, MB30 Mobile or wall bracket, NCP1 Nylon chest pack, OPC254 Mini DC power cable, OPC254L Right angle mini DC power cable, SP13 Earphone, VS1 VOX-PTT unit for HS94

IC-V8 2M FM HT ICOM's first amateur 2m handheld radio with CTCSS/DTCS enc/decode with tone scan. You will not find a 2M HT that is easier to use. • Retro design • 144-148MHz • Full 5.5W output (standard battery) • Acoustical design for the best audio • 100 alphanumeric memories with easy recall • Scans 40 channels/second • Zoom through personalized scan ranges • Customize operatation using up/down and rotary controls • Designed for any size hand with full-sized keypad for larger fingers • Drop-in trickle charger included, which operates from 12VDC either in home or car; charge battery in radio or alone • Use a PC to set-up operating parameters • Durable green polycarbonate front panel and aluminum diecast chasis built to military specs • 2.125"w x 5.188"h x 1.375"d, 12.3 oz... **$124.99**

Available Accessories

AD101 Battery adapter for BP211 and BC119N01, AD9411 Adapter cup for BC119N01, BC119N01 Desk charger, BC14401 Desk charger with adapter, BP208 Battery case, BP209 7.2V 1100mAh 5.5W battery, BP210 7.2V 1650mAh 5.5W battery, BP211 7.4V 1600mAh Lith ion battery, BP222 7.2V 600mAh 5.5W battery, CP17L Right angle cigarette cable for charger, CSV8 Cloning software, HM128L Right angle plug for earphone or mic, HM131L Right angle plug for speaker/mic/earjack/clip, HM46L Slim-line speaker mic with right angle plug, HM54 Heavy-duty speaker mic, HM75A Remote control mic, HS51 Headset/VOX, HS94 Earpiece headset, LCF3GSWIVEL Leather case with swivel, MB68 Extra standard belt clip, MB74 Spring loaded belt clip, MB87 Swivel belt clip, OPC474 Radio-to-radio clone cable, OPC478 PC cable, OPC478U PC USB cable, OPC515L Right angle DC cable for charger, SP13 Earphone, UT108 DTMF decode unit, VS1L Right angle VOX-PTT unit for HS94

IC-T7H 2M/440MHz Dual Band HT 5W with standard battery (9.6V/650mAh) • Up to 6W @ 13.5V DC (optional DC power cable required) • TX 144-148 MHz, 440–450MHz; RX 118–174 MHz, 400–470MHz • 250mW+ audio output • One-touch band switching • Priority watch • 70 memories (9 DTMF, for auto dialing) • CTCSS tone encode/decode • 50 independently programmable tone frequencies • Auto power save and repeater function • Auto OFF • Thumb-touch lock settings • Internal guide • Backlit LCD • Wall charger • Programmable • 2.3"w x 4.8"h x 1.1"d, 14.3 oz..... **$179.99**

Available Accessories

AD56 Battery pack adapter/rapid charger, BC119N11 NiCad/NiMH desk charger, BP170 Battery case, BP172 950mAh 4.8V battery, BP173 600mAh 9.6V battery, BP180 600mAh 7.2V battery, CP12 Cigarette cable with filter, CP12L Right angle cigarette cable with filter, CST7 DOS programming software, CSWHH4 Windows software with cable, FA1443B 2M/440 duck, HM128 Earphone + mic, HM131 Speaker/mic/earphone jack/clip, HM46 Slim-line speaker mic, HM54 Heavy-duty speaker mic, HM75A Remote control mic, HS10 Boom mic/headset, HS10SA VOX unit, HS10SB PTT switchbox, HS85 Headset with VOX, HS94 Earpiece headset, LC136 Case for T7H with BP170/171/172, LC137 Case for T7H with BP173/180, MB30 Mobile or wall bracket, NCP1 Nylon chest pack, OPC254 Mini DC power cable, OPC254L Right angle mini DC power cable, OPC478 PC cable, SP13 Earphone, VS1 VOX-PTT unit for HS94

IC-W32A 2M/440MHz Dual Band HT 5W output @ 13.5V DC • 144-148, 440-450 transmit; 118-174, 400-470 receive • 200 memories • 8-character alphanumeric memory identification • Keypad entry • Backlit display and keypad • HT-to-HT cloning capability or PC programming capability (optional accessories required) • Independent tuning and volume band controls • VHF/UHF ex-change function allows assignment of VHF/UHF band controls to either knob • Meets MILSPEC C/D/E for shock and vibration • 2.25"w x 5.5"h x 1.4"d, 16 oz..... **$259.99**

Available Accessories

AD51 Battery pack adapter/rapid charger, BC119N11 NiCad/NiMH desk charger, BP170 Battery case, BP172 950mAh 4.8V battery, BP173 600mAh 9.6V battery, BP180 600mAh 7.2V battery, CP12 Cigarette cable with filter, CP12L Right angle cigarette cable with filter, CSWHH4 Windows software with cable, CSW32 DOS programming software, FA1443B 2M/440 duck, HM128 Earphone + mic, HM131 Speaker/mic/earphone jack/clip, HM46 Slim-line speaker mic, HM54 Heavy-duty speaker mic, HM75A Remote control mic, HS10 Boom mic/headset, HS10SA VOX unit, HS10SB PTT switchbox, HS85 Headset with VOX, HS94 Earpiece headset, LC128 Carrying case, MB30 Mobile or wall brkt, NCP1 Nylon chest pack, OPC254 Mini DC power cable, OPC254L Right angle mini DC power cable, OPC474 Radio-to-radio clone cable, OPC478 PC cable, SP13 Earphone, VS1 VOX-PTT unit for HS94

We accept I.M.P.A.C.® Government Credit Cards

MULTI BAND HANDHELDS

IC-T90A 6M/2M/70cm FM Handheld Palm-sized, simple to operate, and designed with a die-cast aluminum chassis. New MOSFET technology, along with a 7.4V Lithium-ion battery, produces a full 5W. Wideband receive covers 495 kHz to 999.990MHz (cellular blocked), AM, FM or WFM modes. Unique WX Alert feature constantly checks local active weather station for alert tone. If alert occurs, the HT automatically switches to the WX channel and beeps. Scanning management with 555 alphanumeric memories (500 regular, 50 scan edges, and 5 call channels). Dynamic Memory Scan allows choosing any of 450 memories to scan, and, with its soft partitioning, setting up a maximum of 18 banks or 100 channels/bank. Pre-programmed with TV station frequencies! Over-sized buttons for easy operation. Optional PC software for memory, alphanumeric, scan list and parameter customizing. • 2.28"w x 3.44"h x 1.16"d, 8.47 oz..... **$259.99**

Available Accessories

AD92SMA SMA – BNC adapter, BC139 Desk rapid charger, BP216 Battery case, BP217 7.4V 1300mAh lith-ion, CP19R Cigarette cable with filter, CST90A Windows cloning software, HM128 Earphone + mic, HM131 Speaker/mic/earphone jack/clip, HM46 Slim-line speaker mic, HM75A Remote control mic, HS85 Headset with VOX, HS94 Earpiece headset, LC152A Carry case, MB83 Swivel belt clip, OPC474 Radio-to-radio clone cable, OPC478 PC cable, OPC478U PC USB cable, SP13 Earphone, VS1 VOX-PTT unit for HS94

KENWOOD

SINGLE BAND HANDHELD

TH-22ATH 2M FM Handheld This is a super-compact and lightweight transceiver with impressive performance. EZ to use menu system. Palm-sized, sharply styled, easily slips into pocket. • 5W output from MOS FET power module and standard PB-34 NiCad battery • 136-174 receive • RF output control (Hi/Low/EL) • 144–148 MHz coverage • 40 memory channels stored in E²PROM (plus 1 call channel) • Auto repeater offset • Multi scan functions (VFO, call and memory) • Dual Scan stop modes (CO and TO) • CTCSS encode • DTSS and page • Luminescent keypad and LCD with backlighting • Built-in DTMF keyboard • 5 DTMF memories • Tone alert • Selectable squelch configuration • Busy channel lock out • Battery voltage indicator • Drop-in desktop charger • 2.1"w x 6.1"h x 1.12"d, 11 oz..... Closeout **$199.99**

Available Accessories

BT9 Four "AA" battery holder, EMC3 Label clip mic/earphone PC, HMC3 VOX/boom mic headset, KSC14 2 pack rapid charger, KSC8A Drop-in charger, PB33 1200mAh 6V battery, PB34 600mAh 9.6V 5W battery, PG2W DC cable, PG3J Cigarette cord with filter, SMC32 Mini right angle speaker mic, SMC33 Speaker mic with remote control, SMC34 Speaker mic with volume function keys, TSU8 CTCSS decoder, WR2 Water resistant bag

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KENWOOD

TH-K2AT 2M FM HT • 5W RF output • 100 memories with 6-character names • Large LCD panel and backlit keys • Internal VOX • Weather alert/RX (US only) • Automatic simplex checker • Auto repeater offset • Multiple scanning functions • Priority scan • Built-in 42-tone CTCSS and 104-code DCS • DTMF encode • Automatic simplex check • Memory channel transfer • Time-out timer • Auto power off • Meets MIL-STD-810 standards for resistance to rain, vibration, shock and humidity • PC programming capability • 4" high-gain antenna • Charges 3X faster than previous models with high-capacity NiMH **$159.99**

Available Accessories

BT14 Six "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **KHS21** Boom mic headset, **KSC24** Rapid charger, **PB43N** 1100mAh 7.2V NiMH battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4Y** Programming cable, **SC54** Soft case, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **WR2** Water resistant bag

DUAL BAND HANDHELDS

TH-D7A(G) 2M/440MHz Dual Band Data Communicator Equipped with a built-in TNC* for simple packet operation or with a GPS as a full function APRS™. Reports position, speed and heading as well as calculation of distance to destination. Also use for APRS™ messaging – send up to 45 characters without a PC. Advanced functions possible with the VC-H1 • 5.5W @ 13.6V DC • 2M: 144–148MHz tx, 118–174MHz rx • 440MHz: 430–450MHz tx, 400–480MHz rx • 1200/9600 baud TNC • Station list stores data in up to 40 memory channels • Grid square locator display • Dual receive on same band for voice and data (VHF only) • 200 memories • PC programmable for frequency and name (PG-4W required) • 16 backlit keys • CTCSS encode/decode • MIL-SPEC 810C/D/E water resistant • 10 channel DTMF phone and auto patch memories • TM-V7A and TM-742D DTMF remote • Altitude • Time • 3-position memory • 3-memory text • Position ambiguity • Audible emergency signal • Auto message response • Data band settings • 1750MHz packet burst • 4.75"h x 2.25"w x 1.5"d, 12 oz **$359.99**

Available Accessories

BC19 Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB39** 600mAh 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4V** VCH1 connector cable, **PG4W** PC software and cable, **SC47B** Black soft case, **SC47OR** Orange soft case, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **WR2** Water resistant bag

TH-G71A Dual Band FM HT Its ergonomic design, illuminated and back lit display all combine to make operation a breeze. The EZ to use menu system gives full control over all operating settings. • 6W (VHF), 5.5W (UHF) @ 13.8V DC • 2M: 144–148 tx/rx and 118–174MHz extended receive including Aircraft, 440MHz: 430–450MHz tx and 400–470 MHz rx • 200 multi-function memory channels • Memory name function • Multiple scan modes • CTCSS tone scan • DTMF memory (10 channels) • DTMF remote control • Function key lock • Auto battery saver circuit • Auto power-off • TIme-out timer • PC ready • High performance antenna • TM-V7A remote control • MIL-STD 810E approved • 2.3"w x 4.4"h x 1.3"d, 11.6 oz..... **$229.99**

Available Accessories

BC19 Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB39** 600mAh 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC45** Soft case for G71A with PB38/39, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **WR2** Water resistant bag

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TRIBAND HANDHELD

TH-F6A FM Triband HT Covers 144/220 and 440MHz plus 0.1-1300 cell blocked (including Aircraft receive). • Dual channel receive capability • FM/FM-W/FM-N/AM plus SSB/CW receive • Ferrite bar antenna for receiving AM • Weather channel RX mode • 435 memories (8 groups of 50 channels) • 3 call channels plus 20 for programmable scan • Multiple scan functions • 7.4V 1550 mAh lithium-ion battery for 5W and extended operation • 16-key backlit pad plus multi-scroll key • Built-in charging circuitry – battery recharges while unit opertaes form a DC supply • Built-in CTCSS enc/decode/DCS • Large 8-character alphanumeric display • Wire-less remote control • Battery indicator • Internal VOX • MCP programming software via web (using PG-4P) • Meets MIL-STD 810 C/D/E for resistance to vibration, shock and light rain • 3.438"h x 2.313"w x 1.188"d, 8.8 oz (with battery) **$329.99**

Available Accessories

BT13 AA battery case, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **KHS21** Boom mic headset, **PB42L** 1550mAh 7.4V lith-ion battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC51** Softcase with swivel belt clip, **SMC32** Mini right angle speaker mic, **SMC33** Spker mic with remote control, **SMC34** Spker mic with volume function keys, **WR2** Water resistant bag

YAESU

SINGLE BAND HTS

VX-150 2M Ultra-Rugged FM HT Designed to perform under the most difficult conditions. Packed with leading edge features. Die-cast aluminum case • High output speaker • Illuminated keypad and OmniGlow™ • 5W with standard battery • Three power output levels • 144–148 MHz tx, 140–174MHz rx • 209 memories • SmartSearch™ auto memory loading • Keypad with 16 multi-function keys • Two user-definable function keys • Priority monitoring • Dual watch • Alphanumeric recall • Memory bank and preferential memory scanning • VFO search • Auto repeater shift • ARTS™ • Wide and narrow deviation selection • 1750Hz tone calling • Programmable menu • Battery saver and auto power off • MIL-STD 810D/E rating • 4.2"h x 2.3w x 1.1"d, 11.5 oz..... **$119.99**

Available Accessories

ADMS1F Programming software, **CN3** BNC-SMA adapter, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA25** 6 "AA" cell battery case, **FNBV57** 7.2V 1100mAh battery, **FNB64** 7.2V 700mAh battery, **LCC150/TT** Leather case, **LCC150S/TT** Leather case/swivel, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC72B** Extra wall charger, **VAC400B** One-hour rapid charger, **VC25** VOX headset

DUAL BAND HANDHELDS

FT-50RD/41B Ultra Compact Dual Band VHF/UHF HT High performance, heavy-duty, rugged, state-of-the-art and small enough to put in a pocket. Simple to operate, with all the features you want. • Power output 5/2.8/ 1/0.1W • Transmit: 144–148MHz and 430–450MHz • RX: 76–200, 300–540, 590–999MHz (cell blocked), includes AM aircraft receive, FM narrow and wide • 3 selectable filters • Digital Code Squelch • CTCSS en/decode • 112 memories plus 2 home channels • High speed scanning • 48-character alphanumeric display • ARTS™ • Dual watch • Digital voice recorder • Windows™ PC programmable • Rear mount battery • MIL-STD 810D/E rating • 3.9"h x 2.25"w x 1.2"d, 11.5 oz..... **$209.99**

Available Accessories

ADMS1E Software, **CA14** Two charging sleeves, **CA15** Charging stand for NC60B, **CLIP10** Spring loaded belt clip, **CN3** BNC-SMA adapter, **CSCV10** Cordura case, **CSC68** Case for unit with FNB41/FBA15, **CT27** Cloning cable/CT27A, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA15** 4 AA battery holder, **FBA21** 6 AA battery holder, **FEP10** Earphone, **FNBV47** 7.2V 1100mAh battery with belt clip, **FNB41** 9.6V 600mAh 5W battery, **LCC10C** Leather case with clip for unit with FNB41/V47, **LCC10S** Leather case with sleeve for unit with FNB41/V47, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC50** One-hour dual slot charger, **NC60B** Wall charger, **PA17** Battery cable extender, **VC25** VOX headset

YAESU

VX-1R Ultra Compact Dual Band HT Provides superb local communications at power levels of 1W or 500mW. Impressive memory and scanning capabilities in addition to wideband receive which includes VHF and UHF TV audio. AM broadcast, FM broadcast, AM aircraft band, and public safety channels. • Receive ranges: 0.5–1.7MHz (BC Band) 76–108MHz (FM) • 108–137 (AIR) 137–170 (VHF HAM) • 170–222MHz (VHF TV) • 222–450MHz • 470–800MHz (UHF TV) • 800–999MHz • Cell blocked • Transmit ranges: 144–148 MHz • 430–450MHz • 500 mW with standard 3.6V lithium-ion battery (1W at 6V DC) • 291 memory channels • SmartSearch™ • CTCSS enc/decode, digital coded squelch • Backlit keypad • ARTS™ • One-touch emergency system • PC programmable • 6-digit alphanumeric memory labels • 3.2"h x 1.9"w x 1"d, 4 oz C/O **$129.99**

Available Accessories

ADMS1E Windows software, **CN3** BNC-SMA adapter, **CSC71** Soft case, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC15** DC adapter, **FBA20** Battery holder, **FEP10** Earphone, **FNB52LI** 3.6V 700mAh lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **NC66B** Two-hour charger, **VC25** VOX headset

FREE ITEMS included with some radios. See Price Guide for details.

VX-2R Ultra-compact 144/430MHz Dualband FM Handheld Transceiver Slightly smaller in total size than the 1R, the 2R is housed in a rugged, aluminum, die-cast case. Powered by a slim-line 1 amp-hour Li-ion battery pack, yielding 1.5W output on 2M, and 1W on 70cm. With external DC power applied (optional), power increases to 3/2W (2M/70cm). The 2R includes wide receiver coverage from 500kHz to 999MHz (cellular blocked) on AM and FM modes. Over 1300 memories, special banks for shortwave broadcast, marine band, and NOAA weather ("Severe Weather Alert" included), CTCSS/DCS with "split tone" capability, a WIRES™ internet key and DTMF auto-dialer. Outstanding audio. • Dual-channel "priority" operation • VOX (optional) • RF squelch • Channel counter searches for frequency of strong nearby station • Automatic Repeater Shift • ARTS™ • Busy channel lock-out • DC voltage meter • Wide/narrow deviation setting • Cloning, for quick transfer of programming data • 1750Hz tone (European repeater) • 1.89"w x 3.19"h x 0.91"d, 4.7 oz..... **$179.99**

Available Accessories

CN3 BNC-SMA adapter, **CSC90** Soft case, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **EDC21** DC adapter, **FNB82LI** 3.7V 1000mAh lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **VC25** VOX headset

TRIBAND HANDHELDS

VX-5R Tri-Band HT A miniature FM transceiver with extensive frequency coverage of 2M, 6M, 440MHz (including AM and FM broadcast), HF shortwave up to 16MHz and VHF AM aircraft. Super thin profile and durable lightweight design. • 5W (4.5W 430MHz) with standard lithium-ion battery • 50–54, 144–148 and 430–450MHz tx, .5–15.995, 48– 728.990 and 800–998.990MHz wideband rx (cell blocked) • 220 memories plus home channels • 10 auto-scan weather channels • CTCSS enc/decode, DCS • Backlit keypad • ARTS™ • 8-character, alphanumerics • Time-out timer • Dual watch • Dot matrix LCD Smart search spectrum analyzer • Temperature display read-out • Barometric pressure sensor option • Automatic power-off • Windows PC programmable • 16-digit 9-memory DTMF autodialer • Busy channel lock out • Multi-section antenna • Aluminum diecast case • MIL-STD 810 rating • 3.4"h x 2.3"w x 1.1"d, 8.9 oz..... **$219.99**

VX-5RS Same radio as the VX-5R above with a silver case **$219.99**

Available Accessories

ADMS1E Windows software, **CD15A** Charger stand for NC72B, **CN3** BNC-SMA adapter, **CSC73** Soft case, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter/plug/wire only, **FBA23** 2 "AA" cell battery case, **FNB58LI** 7.2V 1100 mAh lithium-ion battery, **FNB80LI** 7.4V 1300mAh lithium-ion, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC72B** Extra wall charger, **SU1** Altitude/barometric pressure sensor, **VC25** VOX headset

VX-7R Ultra-Rugged, Submersible Magnesium FM Triband HT With a full 5W output on 50, 144 and 430MHz FM, the 5R also offers bonus coverage on 222MHz FM band at 300mW. The rugged design allows the unit to be submersible at 3' for 1/2 an hour and it sports rubber bumpers, all for JIS-7 specification protection. • 500kHz to 999MHz continuous receive (cellular blocked) • Four simultaneous dual receive modes • Over 900 memories including 40 memory scan band limit, 10 home channels and 10 weather • Built-in CTCSS/DCS enc/decode • "Split Tone" capability • Auto-Range Transponding System • Easy-to-read display with graphical and pictorial tools – user-changeable icons and fonts • Full-color strobe LED • Spectrum scope display • 24-hour clock • On/Off timers • Internet key for instant access to WIRES™ internet-linking • "Quick-Draw" swivel-mount belt clip • 7.4V 130mAh lithium-ion battery • Choose black or silver • 2.4"w x 3.5"h x 1.1"d, 9.2 oz... **$309.99**

VX-7RB Same radio as the above VX-7R with a black case..... **$309.99**

Available Accessories

ADMS1G Programming software, **CD15A** Rapid charger for NC72B, **CMP460A** Waterproof speaker/mic, **CN3** BNC-SMA adapter, **CSC88** Soft case, **CT91** Microphone adapter, **EDC5B** DC adapter/filter, **EDC6** DC adapter/plug/wire only, **FBA23** 2 "AA" cell battery case, **FNB80LI** 7.4V 1300mAh lithium-ion, **MH57A4B** Speaker/mic, **NC72B** Wall charger, **SU1** Altitude/barometric pressure sensor, **VC27** Earpiece/mic

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HF RADIOS

DX-70TH Compact HF Covers 160-6M • 150kHz-30MHz and 50-54MHz receive • SSB, CW, AM, FM • 100W (AM 40W) • Detachable face • 100 multi-function memories • Two VFOs • Easy split operation mode • Multi-function control • Narrow filter • Noise blanker • Speech processor • CTCSS for 10M and 6M repeaters • Full, semi or auto break-in CW • All mode squelch • General coverage receiver • Quick offset • Two scan modes • Separate antenna terminals for HF and 6M • RIT • TXIT • Selectable AGC • RF gain control • Dial lock • Automatic antenna tuner interface • MARS/CAP capability • 2.25"h x 7"w x 9"d, 8.3 lbs **$699.99**

Available Accessories

DM330MVT 30 amp switching power supply with meter, **EBC8** Front control head bracket, **EBC9** Extra mobile bracket, **EDS4** 5' remote mount accessory cable kit, **EDS5** 5' mic extension cable, **EDS6** 15' remote cable, **EDX2** 160-10M auto wire tuner, **EMS14** Desk mic, **PC25** DC cable

DX-77T 160-10M • 500kHz-30MHz general rx • SSB/CW/AM/FM • 100W (AM 40W) • 100 multi-function memories • Two VFOs • PC control via optional cable and software • Direct digital synthesis • Easy split operation mode • Multi-function control • CW narrow filters • Noise blanker • 6–50 WPM electric keyer • Full, semi or auto break-in CW • All mode squelch • Quick offset • Two scan modes • RIT • High/low power setting control • Selectable AGC • RF gain control (RX) • Dial lock • Auto antenna tuner interface • Industry standard power input plug • MARS/ CAP capability • Requires 13.8V DC @ 20A • 3.6"h x 9.5"w x 9"d, 8.3 lbs . **$669.99**

Available Accessories

DM330MVT 30 amp switching power supply with meter, **EDS5** 5' mic extension cable, **EDX2** 160-10M auto wire tuner, **EMS14** Desk top microphone, **PC25** DC cable

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A digital wolf in sheep's clothing.

Icom's new IC-2200H. Not your ordinary 2M mobile. This powerhouse growls with the best in rugged, traditional 2M operation combined with optional low-band digital for voice and data communication. Similar in appearance to the '2100H, this alpha wolf shares the same basic panel layout as its domesticated kin, but has a newly designed MOS-FET power amplifier to generate a stable, heart-stopping 65W of output power, selectable in four steps – 65/25/10/5W. Add the optional UT-115 digital unit and get digital voice and data, callsign memory, and position exchange – when connected to an external GPS receiver. Want more? Experts confirm the best place to start hunting would be at AES.

65W Output Power • Get your signal out! A newly designed MOS-FET power amplifier provides a stable, dependable 65W – selectable in four steps, 65/25/10/5W.

Wideband VHF Receive with Weather Alert • 118-174MHz. Enough coverage for your public safety needs! Weather alert to keep you on top of any weather emergencies.

Digital Operation (optional) • With the optional UT-115, get crystal clear digital audio & data, callsign memory with up to 20 character message, and position exchange (when connected to an external GPS receiver), allowing you to exchange position information.

Simple Operation • The '2200H retains the same basic panel layout and user interface as the '2100H. Large tuning dial provides easy access so you can keep your eyes on the road.

Rugged Construction • Durable, one piece aluminum diecast construction provides dependable operation – even in harsh environments!

Enhanced APRS® • Now you can use a single channel for voice and data! APRS® or other new software operations can now be utilized while a conversation is underway.

207 Memory Channels • including one call channel and six scan edges, all with six character alphanumeric channel naming

The future begins here!

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SINGLE BAND HANDHELDS

Manufacturer	ADI	ALINCO	ALINCO	ALINCO	ALINCO	ALINCO	ICOM	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	YAESU
Model	AT-201HP	DJ-196T	DJ-296T	DJ-496T	DJ-S11T	DJ-S40T	IC-2GXAT/HP	IC-T2H SPORT	IC-T22A	IC-V8	TH-22ATH	TH-K2AT	VX-150
Band	2 meters	2 meters	220MHz	440MHz	2 meters	440MHz	2 meters	2 meters	2 meters	2 meters	2 meters	2 meters	2 meters
Rx Range (MHz)	130-179	135-174	222-225	430-450	144-148	425-450	144-148(8)	136-174	136-174	136-174	136-174	136-174	140-174
Aircraft Rx	No	No	No	No	No	No	No	No	No	No	No	No	No
Power Output	5W	5W	5W	5W	340mW	500mW	7W	6W	5W(9)	5.5W	5W	5W	5W
Touch-Tone Pad	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes(4)	Yes	Yes	Yes
Tone Decode	Yes	Yes(4)	Yes(4)	Yes(4)	No	Yes	Yes	Yes	Yes	Yes(4)	TSU-8	DCS	Yes
Memories	40	40	40	40	21	100	43	40	80/40(10)	100	41	100	200
Alphanumeric	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	Yes	Yes
Battery Type	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	AA	AA	Ni-Cad	Ni-Cad*	Ni-Cad	Ni-Cad	Ni-Cad	Ni-MH	Ni-Cad
PC Programmable	No	No	No	No	No	No	No	Yes	No	Yes	No	Yes	Yes
Antenna Conn	BNC	BNC	BNC	BNC	Fixed(7)	SMA	BNC	BNC	BNC	BNC	BNC	SMA	SMA
Height (in.)	3.3	4.9	4.9	4.9	3.9	4.0	4.9	4.5	4.8	5.2	4.6	4.4	4.3
Width (in.)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.1	2.2	2.4	2.3
Depth (in.)	1.2	1.6	1.6	1.6	1.1	1.2	1.4	1.3	1.1	1.4	1	1.1	1
Weight (oz.)	6.6	13.2	13.2	13.2	2.72	3.5	12.9	14.8	10.9	12.3	10.2	12.5	11.5

*Only alkaline case included
(4) Standard CTCSS plus DCS
(6) Guaranteed 440-450MHz only
(7) Folding ant. attached. 2m ant. - telescopic, 70cm - flex.
(8) Expandable to 136-174
(9) With external 13.8V
(10) 80 without Alphanumerics, 40 with Alphanumerics
(13) Dual operation between Voice & Data
(14) 1W with wall cube or cigarette adapter
All radios are cell blocked

FREE ITEMS included with some radios.
See Price Guide for details.

MULTI BAND HANDHELDS

Manufacturer	ALINCO	ALINCO	ALINCO	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	YAESU	YAESU	YAESU	YAESU	YAESU
Model	DJ-596TMKII	DJ-C5T	DJ-V5TH	IC-T7H	IC-T90A	IC-W32A	TH-D7A(G)	TH-F6A	TH-G71A	FT-50RD/41B	VX-1R	VX-2R	VX-5R VX-5RS	VX-7R VX-7RB
Tx Range (MHz)	144-148 420-450	144-148 420-450	144-148 438-450	144-148 440-450	50-54 144-148 430-450	144-148 440-450	144-148 430-450	144-148 222-225 430-450	144-148 430-450	144-148 430-450	144-148 430-450	144-148 430-450	50-54 144-148 430-450	50-54, 144-148 222-225 430-450
Rx Range (MHz)	136-174 400-512	118-174 420-450	76-999	118-174 400-470	.495-999.99	118-174 400-470	118-174 400-480	0.1-1300	118-174 400-470	76-200 300-540 590-999	.5-1.7 76-999	.5-1000	0.5-16 48-729 800-999	.5-16 48-730 800-900
Single/Multi Rx	Single	Single	Single	Single	Single	Dual	Single(13)	Dual	Single	Single	Single	Single	Single	Dual
Aircraft Rx	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Output	5W	300mW	5W	6W	5W	5W	5W	5W	5W	5W	500mW(14)	1.5W (1W/70cm)	5W	5W (300mW/222)
Memories	100	50	200	70	555	200	200	435	200	112	291	1300+	220	220
CTCSS	Enc/Dec/DCS	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec/DCS	Enc/Dec	Enc/Dec	Enc/Dec/DCS	Enc/Dec	Enc/Dec/DCS	Enc/Dec/DCS	Enc/Dec/DCS	Enc/Dec/DCS	Enc/Dec/DCS
TTP	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Alphanumeric	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PC Programmable	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Eventually	Yes	Yes
Battery Type	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad	Li-ion	Li-ion	Li-ion	Li-ion
Ant.Connector	BNC	Fixed	SMA	BNC	SMA	BNC	SMA	SMA	SMA	SMA	SMA	SMA	SMA	SMA
Height (in.)	4.9	3.7	3.8	4.8	3.4	5.5	4.7	3.4	4.4	3.9	3.2	3.2	4.1	3.5
Width (in.)	2.2	2.2	2.3	2.3	2.3	2.3	2.1	2.3	2.1	2.3	1.9	1.9	2.4	2.3
Depth (in.)	1.6	0.4	1.3	1.1	1.2	1.4	1.7	1.2	1.3	1.2	1	0.9	1.3	1
Weigh (oz.)	13.2	3.2	12	14.3	8.5	16	13.4	8.8	11.6	11.5	4	4.7	10	19.6

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val•ue (v l yōō) n from L valuta, worthy

1. a fair return in money or another medium of exchange for something. *"My Icom dual band mobile radio was well worth the money, a great value."*

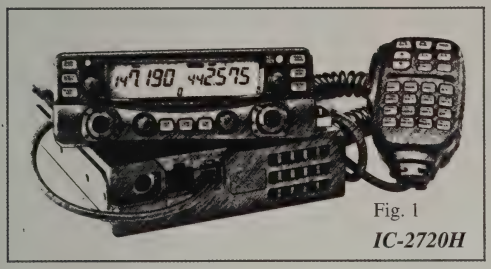

Fig. 1
IC-2720H

2. the exact monetary worth of something. *"My Icom dual band amateur radio is a great value especially since the remote head cable comes standard; a savings of over $50.00".*

3. the relative worth, importance, or usefulness of something to somebody. *"My Icom dual band radio is invalueable to our local emergency communications preparedness".* **<positive value for the money> <the value of unimpaired communications during an emergency>**

4. a. a numerical quantity that is assigned or is determined by calculation or measurement **<the value of x>** *"If I have ten Icom dual band mobile radios, and I take away four, I am in extreme sorrow, and I am left with a value of six Icoms – which is still a hundred times better than any other radio, let me tell you!"* **b.** precise signification **<the word value of something>** *"My Icom dual band mobile radio is beyond measurable value when it comes to emergency preparedness."*

Fig. 2
IC-208H

5. a. the real or perceived duration of time a musical note is held. *"The clarity of sound my Icom dual band mobile gives is music to my ears."* **b.** the written representation of the quality of tone or a spoken sound. *"My Icom IC-208H has 2 Watts of audio output."*

6. a. the lightness or darkness of a color: LUMINOSITY **b.** the reltion of one part in a picture to another with respect to lightness and darkness *"The amber value of my Icoms LCD display is adjustable to the environmental needs, and is perfect to see day or night."*

7. something (as a principle or quality) intrinsically valuable or desirable **<sought material values instead of human values>** *"I value my Icom dual band mobile radios above any other."* value verb

Inflected Form(s):

val·ued; val·u·ing; got to have one

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ICOM

DUAL BAND BASE STATION

IC-910H VHF/UHF All-Mode With optional 1200 MHz installed, it becomes an SSB/CW/FM tribander. • 144-148, 430-450 and 1240-1300MHz (option) • 99 regular memories, 1 call, 6 scan edges per band, 10 satellite • 5-100W (2m), 5-75W (440MHz) • 3.5" multi-function LCD, 10-key direct enty keypad • Satellite mode support • Simultaneously works 2 bands in receive and full duplex • CW full support • Versatile scan functions • Memory pad • 50 tone CTCSS encode • Speech compressor • One-touch & auto repeater • IF shift • VOX • Requires 13.8V DC @ 23A • 9.5"w x 3.6"h x 9.4"d, 10 lbs ... **$1099.99**

Available Accessories

AG1200 1.2gHz mast mount preamp, AG2400 2.4gHz mast mount down conv., AG25 2M mast mount preamp, AG35 430 mast mount preamp, CR293 High stability crystal unit, CT17 Level converter, FL132 500Hz main receiver CW filter, FL133 500Hz sub-band receiver CW filter, MB23 Carrying handle, MB5 Mobile mount, PS125 25A switching power supply, SM20 Stand mic for base stations, SP10 Slim-line external speaker, SP7 Small external speaker, UT102 Voice synthesizer, UT106 DSP unit, UX910 10W 1.2GHz module

HF RADIOS

IC-703 HF QRP Transceiver Versatile – for home, shack, mobile DX'ing and in the field. Covers 160-10M and, depending on power supply, capable of 5W @ 9.6VDC (10W @ 13.8VDC). Similar to the IC-706 series, but without VHF/UHF. Offers a built-in, relay-type automatic antenna tuner (50Ω antennas). • USB/LSB/CW/RTTY/AM/ FM • 105 memories • 10W output max., adjustable steps (5W with 9.6V batteries) • Memory keyer function • Large capacity external battery pack and antenna options • 6.563"w x 2.28"h x 4.875"d, 4.4 lbs..... **$619.99**

IC-703 PLUS Same as above, plus 6M. **$649.99**

Available Accessories

AH2B Whip with mount, AH2BWHIPONLY Extra whip only for AH2B, AH4 80-6M 120W auto wire antenna tuner, AH703 40/20/15/10/6 20W 4.6' antenna, BC155A Battery charger/BP228, BP228 9.6V 2800mAh external NiCad, CT17 Level converter, FL222 1.9kHz 455kHz IF SSB filter, FL257 3.3kHz 455kHz IF SSB filter, FL52A 500Hz 455kHz IF CW filter, FL53A 250Hz 455kHz IF CW filter, HM118TN TTP mic, LC156 Back pack carrying case, MB62 Mounting bracket for main unit, MB63 Mounting bracket for control panel, MB65 Mounting base platform, MB72 Carrying handle, OPC1229 Extra DC cord, OPC581 11.5' separation cable, OPC587 16' separation cable, OPC589 8-pin mic jack adapter cable, OPC599 7+3-pin–13-pin adapter, OPC742 13-pin cable, RMK706 Remote mtg kit, SM20 Stand mic for base station, SM6 Electret desk mic, SP10 Slim-line external speaker, SP7 Small external speaker, UT102 Voice synthesizer

IC-706 MK II-G Compact HF/VHF/UHF All Mode Base station performance in a mobile size. Coverage 160–10M + 6M, 2M and 70cm • 0.03–200 MHz broadband receive with wide AM and FM broadcast • 100W (40W AM) from 160–6M, 50W (40W AM) on 2M, 20W (8W AM) on 70cm • RTTY • PSK31 • Speech compressor • 107 alphanumeric memories • Detachable control panel • 2 filter slots • AF-DSP • Tone encode, scan and squelch • Cross band split • Noise blanker • IF shift • Preamp/attenuator • CW keyer • CW pitch control/reverse • Full break-in • VOX • Simple bandscope • SWR graphic sweep • One-button duplex and auto repeater • 2 antenna connectors • Requires 13.8V DC @ 20A • 6.6"w x 2.3"h x 7.9"d, 5.5 lbs **$769.99**

Available Accessories

BET706TUNECONT Better RF IC706 tune control, AH2B Whip with mount, AH2BWHIPONLY Extra whip only for AH2B, AH4 80-6M 120W auto wire antenna tuner, AT180 HF+6M auto coax antenna tuner, CR282 Stability crystal, CT17 Level converter, FL100 500Hz 9MHz IF CW filter, FL101 250Hz 9MHz IF CW filter, FL103 2.8kHz 9MHz IF SSB filter, FL223 1.9kHz 9MHz IF SSB filter, FL232 350Hz 9MHz IF CW/RTTY filter, HM118TN TTP microphone, LC156 Back pack carrying case, MB62 Mounting bracket for main unit, MB63 Mounting bracket for control panel, MB65 Mounting base platform, MB72 Carrying handle, OPC025D DC cord, OPC581 11.5' separation cable, OPC587 16' separation cable, OPC589 8-pin mic jack adapter cable, OPC598 23' extension cable for AT180, OPC599 7+8-pin–13-pin adapter, OPC742 13-pin cable, PS125 25A switching power supply, RMK706 Remote mounting kit, SM20 Stand mic for base station, SM6 Electret desk mic, SP10 Slim-line external speaker, SP7 Small external speaker, UT102 Voice synthesizer

IC-718 HF All Band Transceiver Advanced features, yet easy to use. Simplfied operation, perfect for beginners or as a backup rig. • Covers 160–10M • Continuous receive 0.03–30MHz • 100W (40W AM) • Built-in USB, LSB, CW, RTTY (FSK) and AM • 101 memories • Variety of scan functions • Front mounted speaker • IF shift • Mic compressor • RF gain control • Noise blanker • RF attenuator and preamp • Auto notch • Ample CW (electronic keyer) • VOX • Flexible filter selection • Digital S/RF meter • High frequency stability • Hand mic included • Requires 13.8VDC @ 20A • 9.4"w x 3.75"h x 9.4"d, 8.5 lb **$569.99**

Available Accessories

BET706TUNECONT Better RF IC706/718 tune control, AH2B Whip with mount, AH2BWHIPONLY Extra whip only for AH2B, AH4 80-6M 120W auto wire antenna tuner, AT180 HF+6M auto coax antenna tuner, CR338 High stability crystal, CT17 Level converter, FL222 1.9kHz 455kHz IF SSB filter, FL257 3.3kHz 455kHz IF SSB filter, FL52A 500Hz 455kHz IF CW filter, FL53A 250Hz 455kHz IF CW filter, FL96 2.8kHz 455kHz IF SSB filter, MB23 Carrying handle, MB5 Mobile mount, OPC025D DC cable, OPC598 23' extension cable for AT180, PS125 25A switching power supply, SM20 Stand mic for base station, SM6 Electret desk mic, SP20 Speaker with audio filter, SP21 Speaker, SP7 Small external speaker, UT102 Voice synthesizer, UT106 DSP unit

IC-746PRO HF/VHF All Mode Transceiver 160–10M + 6M + 2M • Continuous receive 0.03–60MHz, 108–174MHz • 100W (40W AM) • 32-bit floating DSP and 24-bit AD/DA converter • AGC loop management • IF filter width and shape variable • All mode signal mod/demodulation • RTTY demodulator and decoder • Digital twin PBT capability • 100 memories (10 "memo pad") • PSK-31 • Auto tuner • 2 antenna connectors for HF/6M • IF-DSP noise reduction, auto notch and selectable audio peak filters • Noise blanker • Spectrum scope • Twin passband tuning • Triple band stacking register • 2-step preamp • RF speech compressor • Tone squelch/scan • VOX • SmarTune™ variable speed tuning • Auto repeater duplex • CW pitch control • QSO serial number generator • Transmit audio monitor • Up/down frequency mic • Requires 13.8V DC @ 20A • 11.3"w x 4.7"h x 12.5"d, 19.6 lbs **$1379.99**

Available Accessories

BETIMATE Better RF accessory, AH2B Whip with mount, AH2BWHIPONLY Extra whip only for AH2B, AH4 80-6M 120W auto wire antenna tuner, CR338 High stability crystal unit, CT17 Level converter, HM36 Scanning hand mic, OPC025D DC cable, PS125 25A switching pwr supply, SM20 Stand mic for base station, SM6 Electret desk mic, SP20 Spkr with audio filter, SP21 Speaker, UT102 Voice synthesizer

FREE ITEMS included with some radios. See Price Guide for details.

IC-756PRO II HF/50MHz All Mode Transceiver 32 bit floating DSP digital IF filter with 41 selectable bandwidths, microphone equalizer, manual notch function, TFT 5" color LCD (selectable colors/schemes), digital twin passband tuning, and PSK31. • Continuous 0.03-60MHz rx • 100W (AM 75W) • 101 memories • AGC loop management • RF speech compressor • Twin peak audio filter • DPSN • RTTY demodulator • Digital noise reduction • CW wave form • Spectrum scope • Digital voice memories • Memory keyer and pad • Analog and digital meters • Complete CW features • Dual watch • Triple band stacking register • Quick split function • Antenna tuner • RIT and ΔTX control for main and sub-band • Dual antenna system • VOX • 2-level preamp and 3-level attenuator • Auto TS function • Scanning functions • CTCSS tone encoder • Noise blanker level control • Lower band scope floor noise level • DVR (band scope enabled) • Independent digital and voice mode settings • Disable compression in digital modes • 1/4 tuning steps in digital modes • SSB/CW synchronous tuning • 13.3" w 4.3"h x 11.2"d, 21 lbs..... **$2299.99**

Available Accessories

BETIMATE Better RF accessory, AH2B Whip with mount, AH2BWHIPONLY Extra whip only for AH2B, AH4 80-6M 120W auto wire antenna tuner, CT17 Level converter, HM36 Scanning hand mic, OPC025D DC cable, PS125 25A switching power supply, SM20 Stand mic for base station, SM6 Electret desk mic, SP20 Speaker with audio filter, SP21 Speaker, UT102 Voice synthesizer

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Whether chasing a storm, running a hurricane net with video, sending photos of disaster cleanup, or just checking out the DOT cameras while stuck in traffic, uses for the ID-1 are limited only by your imagination! See AES today!

Computer Control
The ID-1 is completely software controllable, and can be customized without limitation! Icom software interface control is included.

computer not included

Analog FM • Get on the air immediately! ID-1 can handle standard amateur repeater operation with CTCSS encode/decode with tone scan.

Digital Clarity • Any signal received in digital mode must match the codec in order to be heard, thereby eliminating intermod from your communications.

Spectrum Efficiency • (6.25kHz) Digital voice transmissions are up to 3 times more efficient than analog systems, requiring significantly less bandwidth! (15-20kHz typ)

128K Data • Take advantage of high speed wireless connection speeds! ID-1 extends your communications well beyond typical WLAN range, covering miles instead of blocks.

Use Digital Voice & Send Data • Slow down your data stream to 2.4K and you can talk while sending text messages (or GPS or packet-type or...). A ham radio first!

Enhanced APRS® • Now you can use a single channel for voice and data! APRS® or other new software operations can now be utilized while a conversation is underway.

Written Directions • Type directions to assist foxhunters, getting DX cluster info, and more.

Auto Call Sign Registration • Incoming call signs are stored automatically while in digital modes. Find out who called while you were away!

Emergency Mode • Emergency button drops squelch, allowing station calls to come in.

10 Base T Ethernet Connection • On the back of radio. Ethernet extension cable included.

Black Box Operation • Configure the ID-1 for virtually tamper-free operation.

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IC-7800 **HF/50MHz Transceiver** The new Icom flagship is a fusion of 40 years of analog RF circuit development expertise, with cutting-edge digital technology. The result, astonishing 110dB dynamic range, +40dB 3rd order intercept point in HF, and other features like a double conversion superheterodyne system, mechanical relay BPF switching and two roofing filters. The ultimate in performance, function, and quality without compromise. • 1.8 to 29.7MHz amateur transmit, 0.03 to 60MHz general receive • USB, LSB, CW, RTTY, PSK-31, AM, FM, SSB DATA modes • SSB/CW synchronous tuning • 101 memories (99 regular, 2 scan edges), 10-character comment • Ultra high stability oven control crystal oscillator • Main and SUB receiver, external speaker connectors for each • Dual watch • RIT and ΔTX • 50MHz preamp and mixer • 5-200W (5-50 AM) • Built-in supply (85–265VAC) and high-speed HF/50MHz automatic antenna tuner • Voice synthesizer (frequency, mode and signal strength) • Four 32-bit, floating point, DSP units and 24-bit AD/DA converters • Digital RF speech compressor • Microphone equalizer (adjustable TX bandwidth) • Triple band stacking register • Multiple scan functions • Digital twin passband tuning • 16-step variable DSP noise reduction • Variable noise blanker • 7" color TFT LCD (spectrum scope S-meter, and RTTY/PSK-31 decode messages) • RTTY/PSK-31 without PC connection • Digital voice recorder (200 second RX memory, 99 second TX) • CF memory card for setting storage • Multi-function, fully adjustable, electronic memory keyer (DSP waveform shaping) • Double key jack system • Full break-in • 50 CTCSS tone enc/decode • UTC/local clock and timer function • Optical digital in/output • CI-V interface capability • BNC-type transverter connector • External CRT display connector • Four antenna connectors • Supplied accessories include 64MB CF memory card, spare fuses, key and pin plugs, rack mount handles, AC cable, speaker plugs, ACC plugs, power plug • 16.6"w x 5.9"h x 17.1"d, 55 lbs ..... **TBA**

KENWOOD

HF RADIOS

TS-480HX **HF+6M All-Mode Transceiver** Tailor-made for DXing. Transmits on amateur bands 1.8 to 50MHz, including 60M • Continuous receive from 500kHz to 60MHz • Up to 200W output on HF (requires 2 PS-53s or equivalent), 100W on 6M • AF DSP offers powerful features such as digital noise limiter, beat cancel, noise reduction, transmit/receive equalizer, AF filters, transmit passband filter, speech processor • Separate LCD control panel with speaker, positioned up to 13 feet from main unit • Twin cooling fans • Full range of CW features, auto tune • Memory name function • Multiple scan functions • Direct frequency entry • CTCSS • Wide/narrow deviation selection • 1750Hz tone • Noise blanker • Crossband repeater (with TM-D700A) • Auto power off and time-out timer • Back lit keys • Optional IF filters available • PSK31 compatibility • Packet cluster tune (with TM-D700A) • PC-based control • 7.06"w x 2.38"h x 10.19"d (main unit), 7.06"w x 2.94"h x 1.44"d (panel) • 7.05 lbs. (main), 1.1 lbs. (panel) **$1379.99**

TS-480SAT 100W version of the HX. Includes built-in automatic antenna tuner..... **$1269.99**

Available Accessories

MC43S 8-pin hand mic, **MC47** Multi function 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MJ88** Modular/8-pin adapter, **PG20** 22' DC cable, **PG4Z** 13' panel extension kit, **PS53** Heavy-duty power supply, **SO3** TCXO unit, **SP23** Speaker, **SP50B** External mobile speaker, **VGS1** Voice guide/storage unit, **YF107C** 500Hz CW filter, **YF107CN** 270Hz CW filter, **YF107SN** 1.8kHz SSB filter

TS-50S **HF Transceiver** • Covers 160–10M • General coverage receive 500kHz–30MHz • 100W output SSB/CW and FM (AM 25W) • 100 memory channels • Multiple scan functions • Powerful menu system • Dual VFOs • Comprehensive interference reduction • Full and semi break-in • CW reverse mode • All-mode squelch • IF shift • Switchable AGC • 20dB attenuator • Noise blanker • Multi-function hand mic • 7"w x 2.3"h x 9.1"d, 6.4 lbs ..... Closeout **$649.99**

Available Accessories

AT50 HF external auto tuner, **KPS15** 23A switching power supply, **MC47** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **PG2Y** DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PG4M** 18' extension cable for the AT50, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **SP50B** External mobile speaker, **TC50** Travel case, **YK107C** 500Hz CW filter

TS-570D(G) **HF Transceiver** • Covers 160–10M • General coverage receive 500kHz–30MHz • Variable output: 5-100W SSB/CW/FM and FSK (AM 25W) • 100 memories with extensive functions • Large amber-colored backlit LCD display • 10-key direct entry • 46 EZ-to-use menu functions • Multiple scanning functions • 16-bit AF-stage DSP VOX • XIT/RIT • IF shift • Noise blanker • All mode squelch • TX audio shaping • Built-in electronic keyer • Full and semi break-in CW • CW message memory • CW auto tune • 38 tone CTCSS encoder and 1750Hz tone • TX audio shaping • Packet and FSK • PC control option • Two antenna ports and packet port • Built-in automatic antenna tuner • Requires 13.8V DC @ 20.5A • 10.6"w x 3.7"h x 10.6"d, 15 lbs..... **$989.99**

TS-570S(G) **HF+6M Transceiver** Same as the TS-570D(G), but covers 160–10M plus 6M. 50–54MHz general coverage receiver..... **$1099.99**

Available Accessories

DRU3A Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **SP50B** External mobile speaker, **VS3** Voice synthesizer, **YK88CN1** 270Hz CW filter, **YK88C1** 500Hz CW filter, **YK88SN1** 1.8kHz SSB filter

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TS-870S All Mode HF Transceiver • Covers 160–10M • General coverage receive 100kHz–30 MHz • 100W output SSB/CW/FM/FSK (25W AM) • 100 memory channels • Multiple scanning modes • Menu function • Variable AGC • IF digital filter (DSP) • DSP detection • Dual mode noise reduction • Automatic notch filter • Voice equalizer • Speech processor • Transmit equalizer VOX • QSK digital IF filter • DSP noise reduction • IF stage auto-notch beat cancel function • Variable AGC circuit • Built-in electronic keyer • CW pitch control • CW reverse • Radio control software program • Auto antenna tuner on transmit and receive • Built-in antenna tuner dual antenna terminals • External receiver antenna output jack • EZ menu system CTCSS encoder • High quality digital recording option • RS-232C port • Requires 13.8V DC @ 20.5A • 13"w x 4.75"h x 13"d, 25 lbs..... **$1999.99**

Available Accessories

DRU3A Digital recording unit, **KPS15** 23A switching power supply, **MC43S** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS52** Heavy-duty power supply, **SO2** TCXO, **SP31** External speaker

TS-2000 HF/VHF/UHF All Mode Transceiver Offers 3 platforms: traditional transceiver with full function front panel, high-tech looking "silver box" version (TS-B2000), or computer controlled with software • 100W output on HF, 6M and 2M; 50W on 70cm; 10W on 1.2GHz (optional) • High performance true IF/stage DSP on main band, AF stage DSP on sub-band • Wide band receive • Digital filtering • Dual receive • Satellite ready, with transverter frequency display • Cross band repeat • Built-in auto tuner HF through 6M • Built-in TNC • Built-in RS-232 for computer control • Built-in TCXO (.5PPM) • CTCSS/DCS enc/dec • Electronic memory keyer • Backlit front key panel • 5+1 antenna ports – 2 for HF and 6M, 1 each for 2M, 70cm, 1.2GHz and HF receive **$1699.99**

TS-B2000 HF/VHF/UHF All Mode Transceiver Same as the TS-2000 with high-tech "silver box" look. Includes PC control software **$1549.99**

TS-2000X HF/VHF/UHF All Mode PC Controlled Transceiver TS-2000 w/1.2GHz..... **$2199.99**

Available Accessories

ARCP2000 PC/radio control software (included with B2000 model), **DRU3A** Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC57DM** Lit TTP mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** DC cable, **PS53** Heavy-duty power supply, **RC2000** Remote face plate mobile kit, **SP23** Speaker, **VS3** Voice synthesizer

MFJ ENTERPRISES, INC.

8708 Micro ATV Transmitter Transmits a high quality amateur television audio and video signal on 433.97MHz (cable channel 58, 59 or 60). Plug in an antenna and a video source (video camera, camcorder, or VCR). With a TV set, or down converter, tuned to the appropriate channel, you'll have a complete low power ATV video station. Puts out 50 to 100mW signal, capable of transmitting up to 1.8 miles with a 3-element beam. By using a suitable UHF amplifier, enjoy ATV communications over an extended range with other ATV ham operators. Requires 9V battery or other source..... **$149.99**

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ORP SINGLE BAND CW TRANSCEIVERS

Easy operation! Sets up in seconds. • 5W CW • Great sensitivity – hot superhet receiver with super-quiet FET post amp stage in the IF filter • Excellent selectivity – tight CW bandwidth crystal ladder filter fights unwanted QRM and noise • Smooth and stable VFO (wide-spaced reduction drive VFO capacitor) • True RIT • Recovery AGC • Built-in 3" speaker • Low power drain – 50mA on receive and 1.2A peak on transmit • Semi-QSK – set adjustable hold transmit/receive switching to suit your normal sending speed or set for full QSK during contests • Compact • Four models below

9015 5W, 15M (21.000–21.200MHz)..... **$169.99**

9020 5W, 20M (14.000–14.075MHz)..... **$169.99**

9030 5W, 30M (10.100–10.150MHz)..... **$169.99**

9040 5W, 40M (7.000–7.150MHz)..... **$169.99**

Available Accessories:

1772 Portable 20M dipole, **1774** Portable 40M dipole, **27** Handle for CW station, **4110** portable AC power supply, **4114** Rechargable power pack, **412** Plug-in Curtis keyer, **726** Plug-in audio filter, **971** 200W portable antenna tuner/meter

LOW POWER SINGLE BAND SSB TRANSCEIVERS

No microprocessor – turn on and tune in. • 20W PEP (Less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage to cut through noise, fading, and QRM • Handheld dynamic mic that complements speech processing • Low drain – 3A from 12V supply or battery • Low noise preamp and active double balanced mixer front end • Sharp 2.3kHz SSB crystal ladder filter reduces passband noise, fights QRM, and improves intelligibility • TVI protection (built-in 7 element lowpass filter) • Real S-meter • Reduction drive analog VFO allows scanning the band for signals quickly, then zeros in smoothly • Amplifier jack • 2.5h" x 6.5"w x 6"d

9420X 20M SSB (14.150–14.350MHz)... **$229.99**

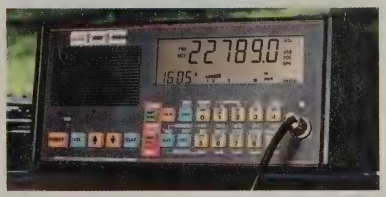
9440X 40M SSB (7.150–7.3MHz)..... **$229.99**

9475X 75M SSB (3.75–4.00MHz)..... **$229.99**

Available Accessories:

4110 Portable AC power supply, **4114** Rechargable power pack, **415B** CW adapter (9420X and 9440X only), **971** 200W HF tuner

SGC



HF SSB TRANSCEIVERS

04-01 SG-2000 HF SSB Global Radio Tele-phone With full frequency coverage for voice and data. Talk anywhere in the world on the HF Ham bands, receive and send time sensitive documents, decode UPI transmissions, get latest weather reports or listen to shortwave broadcasts. Also, great for marine use. It can be fully computer controlled via a standard RS-232 connector. The front panel can also be used as a remote head terminal (up to 8 remote heads can be utilized). • 1.8–30MHz tx, 500kHz–30MHz general rx • 150W • Modes: A3A, A3H, A3J and CW in LSB/USB, true AM in receive mode and data • 100 field-programmable and 644 factory-programmed ITU & data channels • 100 programmable scan channels • 13.6 VDC @ 16A • 4.75"h x 10"w x 15"d, 12 lbs Closeout **$1429.99**

Available Accessories:

5182 Fan kit for continuous transmit, **5234** RS232 interface, **5251** CA-1 HV feed wire, **5254** CA-2000 remote head cable, **5261** PSC/12-1 12' power supply cable/1 plug, **5262** PSC/12-2 12' power supply cable/2 plugs, **5304** PS-30 30/40A peak unregulated power supply, **5305** PS-50 50/70A peak unregulated power supply

SGC

04-10 PowerTalk™ SG-2000 HF SSB Transceiver With the PowerTalk™ SG-2000, you'll intercept more weak HF signals, increase signal clarity and eliminate unwanted noise. You'll hear SSB signals clearer and easier than ever before. Combines SGC's exclusive ADSP™ (Automatic Digital Signal Processing) and SNS™ (Signal Noise Subtraction). A DSP command center with a high performance spinner knob and bright LED indicators. Includes all of the outstanding features of the SG-2000: 644 Ham and ITU discrete frequencies • 150W • Programmable memory • Large LCD.. C/O **$1649.99**

Available Accessories:
5234 RS232 interface, 5251 CA-1 HV feed wire, 5254 CA-2000 remote head cable, 5261 PSC/12-1 12' power supply cable/1 plug, 5262 PSC/12-2 12' power supply cable/2 plugs, 5304 PS-30 30/40A peak unregulated power supply, 5305 PS-50 50/70A peak unregulated power supply

05-04 SG-2020 ADSP² Transceiver For base, backpack or business trips – the ultimate portable transceiver. Operate SSB or CW from wherever you are. The SG-2020 draws only 400mA receive and less than 3 Amps transmit at 20 Watts. Output power adjustable from 0-20W PEP. VOGAD baseband RF speech processing and RF clipping provide plenty of talk-power. No confusing menus and two-step operation: select your frequency and transmit. Fully integrated ADSP² for superior sound clarity, the SG-2020 is pure, simple HF at its best. • Transceiver: 1.8-29.7MHz • 0-20W PEP • <0.8mA receive • <3A transmitting current • Built-in iambic B keyer 5-50 wpm • ADSP2: 13dB and 26dB noise reduction • 2.8"h x 6.2"w x 7.3"d, 4.4 lbs..... **$789.99**

05-01 Same radio as above with 40 memories, excluding the ADSP²....., Closeout **$599.99**

Available Accessories:
5422 SG-239 200W SmartTuner

Used & Demo
Equipment lists

Updated regularly on the web.
Check them out and order **On-line**

YAESU

FT-817ND HF/VHF/UHF Backpack Transceiver Self-contained and low power for portability. • 160–10M, 60M, 50MHz, 144MHz, 430-450MHz, plus Alaska emergency channel (5167.5kHz) tx • 100 kHz-56MHz, 76-154MHz, 420-470MHz, plus AM aircraft rx • 200 alphanumeric memories (home channels and band-limit) • SmartSearch™ memory loading • 5W SSB/CW/FM (13.8V external DC), 1.5W AM, 2.5W SSB/CW/FM (9.6V NiCad pack or 8 AA's, includes internal alkaline case), 0.7W AM, up to 5W SSB/CW/FM power programmable via menu • USB, LSB, CW, AM, FM, W-FM, AFSK, packet • RTTY, PSK31-U, PSK31-L, user-defined USB/LSB • 2-color, multi-function LCD • Meters ALC, power output, SWR, modulation • RF gain/squelch control • Noise blanker • Attenuator • Dual VFOs, split capability, IF shift, and RIT • Electronic keyer • VOX • Auto repeater shift • CTCSS/DCS • Front/rear antenna jacks • 3 accessory jacks • PC control capability • Includes 1400mAh NiMH battery and charger • 5.31"w x 1.5"h x 6.5"d, 2.6 lbs..... **$629.99**

Available Accessories:
W4R OTT1 W4RT one-touch tune, W4R OTT897 One-touch tune, ATAS25 40/20/15/10/6/2/430MHz antenna, CSC83 Soft case, CT39 Packet cable, CT62 Cat interface cable, EDC6 DC cord, FNB72 9.6V 1000mAh NiCad, MH36E8J TTP mic, MLS100 Mobile speaker, NC72B Wall charger, TCXO9 TCXO unit, YF122C 500Hz Collins CW filter, YF122CN 300Hz Collins CW filter, YF122S 2.3kHz Collins SSB filter

FT-840 Compact High Performance HF Transceiver Blending high performance digital synthesis techniques, convenience and affordability from previously successful radios, the FT-840 adds a choice of two optional remote automatic antenna tuners and a wealth of convenient functions. • Direct Digital Synthesis • Covers 160–10M with 50 kHz–30MHz general coverage receiver • 100W output (25W AM) • 100 memory channels • Low noise FET front end • Two direct digital synthesizers (DDSS) and magnetic rotary encoder for smooth tuning • Twin band-stacking VFOs • IF shift • Reverse CW • FM repeater with auto 10M repeater offset • Selectable CTCSS • Requires 13.8V DC @ 20A • 9.2"w x 3.6"h x 9.5"d, 9.9 lbs..... **$579.99**

Available Accessories:
FC10 Extra coax fed auto tuner, FC800 Extra long wire auto tuner, FIF232C RS-232 interface, FM747 FM unit, FP1023 23A switching power supply with fan, FP1030A 25A power supply with meters, MD100A8X Desk mic with tone control, MD200A8X Deluxe high fidelity desk mic, MLS100 Mobile speaker, MMB20 Mobile mount, SP6 External spker, TCXO4 TCXO unit, T9018320 DC cord, YF112A 6kHz AM filter, YF112C 500Hz CW filter, YH77STA Stereo headphone

FREE ITEMS included with some radios.
See Price Guide for details.

FT-847 HF/VHF/UHF All-Mode HF, 50, 144 and 430MHz with full satellite capability • Covers 160–6M, 2M, 70cm and 5.1675MHz (Alaska emergency channel) • General receive: 100kHz–30MHz, 36–76, 108–74, 420–512MHz • 100W on HF/6M (25W AM); 50W (12.5W AM) on 2M/430MHz • High resolution 0.1Hz tuning steps • Shuttle-Jog™ tuning ring • Direct frequency keypad entry • Low noise VHF/UHF preamps • Advanced DSP enhances signal-to-noise ratio via sophisticated bandpass, noise reduction and auto notch filters • Cross band full duplex • Normal/reverse tracking • Dedicated satellite memories • 1200/9600bps packet ready • CW side-tone/pitch control • Built-in CTCSS/DCS • 4 antenna jacks (rear panel) • Requires 13.8V DC @ 22A • 10.2"w x 3.4"w x 10.6"d, 14.4 lbs **$1569.99**

Available Accessories:
W4R ANTENNABOSS W4RT interface, ATAS120 HF/6/2/430 antenna, ATBK100 ATAS100 base kit, CT39 Packet cable, CT61 Amp interface cable, FC20 Automatic antenna tuner, FP1023 23A switching power supply with fan, FP1030A 25A power supply with meters, FVS1A Voice synthesizer, MD100A8X Desk mic with tone control, MD200A8X Deluxe high fidelity desk mic, MH36D8 DTMF mobile microphone, MMB66 Mobile mounting bracket, SP8 External speaker with filters, T9018320 DC cord, YF115C 500Hz CW/Collins Mechanical filter, YF115S02 2.5kHz SSB/Collins Mechanical filter, YH77STA Stereo headphone

FT-857D Ultra-compact, HF/VHF/UHF 100W All-Mode Mobile Blends leading-edge technologies of the FT-897 and MARK-V into the smallest full-power HF multi-mode transceiver. Now includes 60M! Unique ergonomics deliver unmatched ease of use with an ultra-compact design featuring a large, main tuning dial. • 100W HF/6M, 50W 2M, 20W 70cm • Transmits on HF, 50MHz, 144MHz and 430MHz, plus 0.1–56MHz, 76–108MHz, 118-164 MHz and 430-470MHz receive • 200 memories with 10 groups • Enhanced performance with installed DSP board • Large, multi-color dot matrix display • IF shift and noise blanker • IPO • AGC • CTCSS/DCS • Auto repeater shift • SmartSearch™ • Spectrum scope • ARTS™ • Optional remote-head operation and remote control microphone • 6.1"w x 2.0"h x 9.2"d, 4.6 lbs..... **$779.99**

Available Accessories:
W4R ANTENNABOSS W4RT interface, W4R OTT897 W4RT one-touch tune, ATAS120 HF/6/2/430 antenna, ATBK100 ATAS100 base kit, CT39 Packet cable, CT58 Band data cable, CT62 Cat interface cable, FC30 External antenna tuner, FP1023 23A switching power supply, FP1030A 25A power supply with meters, MD100A8X Desk mic with tone control, MD200A8X Deluxe high fidelity desk microphone, MH36E8J TTP microphone, MH59A8J Remote control TTP microphone, MLS100 Mobile speaker, MMB67 Quick release mobile bracket, SP6 External speaker, T9023225 Extra DC cord, TCXO9 TCXO unit (0.5ppm), YF122C 500Hz Collins CW filter, YF122CN 300Hz Collins CW filter, YF122S 2.3kHz Collins SSB filter, YH77STA Stereo headphones, YSK857 Separation kit

YAESU

FT-897D HF/VHF/UHF Multi-Mode Portable/Base Self-contained transceiver, operates without external supply! Now includes 60M! Using the optional 13.2V @ 4500mAh NiMH battery pack, operates at 20W on all bands except 430MHz. Two batteries may be installed simultaneously giving up to 8 hours of use. • 100W (HF/50MHz), 50W (144 MHz) and 20W (430MHz) on external 13.8V DC • Adjustable down to 5W • SSB/CW/AM/FM and digital modes • Large-diameter main tuning dial • Built-in keyer, DSP and TCXO • Selectable tuning steps (2kHz/4kHz) • Easy receiver offset tuning • Scrolling front panel, multi-function keys with instant "hot key" • RS-232 port • Aluminum, die-cast chassis • Thermostatically-controlled twin fans • 7.9"w x 3.14"h x 10.3"d, 8.6 lbs..... **$889.99**

Available Accessories:
W4R ANTENNABOSS W4RT interface, **W4R OTT897** W4RT one-touch tune, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit; use with mount, **CD24** 4-hour charge adapter, **CT39** Packet cable, **CT62** Cat interface cable, **FC30** Antenna tuner, **FNB78** 4.5ah NiMH, **FP30** Internal power supply, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH36E8J** TTP mic, **MLS100** Mobile speaker, **MMB80** Mounting bracket, **PA26B** Charger for CD24, **SP6** External speaker, **T9023225** Extra DC cord, **YF122C** 500Hz Collins CW filter, **YF122CN** 300Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter, **YH77STA** Stereo headphones

FREE ITEMS included with some radios. See Price Guide for details.

Look For This NEW & Check Out AES' Latest Additions.

Used & Demo Equipment lists

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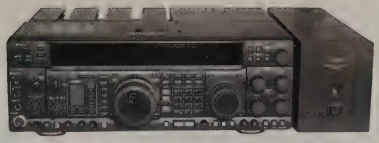

FT-1000MP MK V 200W HF All Mode Transceiver The crowning achievement in Yaesu's HF transceiver design history. A unique blend of analog and digital technology, the MARK-V is based on the concept of rigorous filtering in all stages of the receiver and transceiver. Introduces all-new features to the FT-1000 series. • Interlocked Digital Bandwidth Tracking, which matches the receiver passbands of the 8.2MHz IF, 455kHz IF and DSP systems • Variable RF Front-end Filter, providing a high-Q "Preselector" system protecting the receiver's front end • 200W MOSFET final amplifier, conservatively rated with revolutionary heat sink design • 75W optional Class-A PA operation, providing extraordinary SSB signal purity • Integrated ShuttleJog™ control, combines IBDT and VRF access buttons with the Shuttle-Jog™ frequency control • High-speed automatic antenna tuner for 200W operation • Separate switching power supply, provides 30V for MOSFET PA transistors, and 13.8V for other circuitry • 16.4"w x 5.4"h x 13.9"d, 31 lbs. (xcvr), 4.2"w x 5.4"h x 13.6"d, 13 lbs. (power supply).. **$2089.99**

Available Accessories:
DVS2 Voice recording module, **FH1** Remote control keypad, **FTV1000** 200W 6M transverter, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH31B8** Extra hand mic, **SP8** External speaker with filters, **TCXO6** Deluxe TCXO unit, **YF110CN** 250Hz CW filter/XFF, **YF110SN** 2kHz SSB filter/XFD, **YF114CN** 250Hz CW second IF main receive, **YF114SN** 2kHz SSB second IF main receive, **YF115C** 500Hz CW/Collins Mechanical filter, **YH77STA** Stereo headphone

MK V FIELD Leading-Edge Technology, 100W Self-Contained Design 160-10M tx (amateur only), 100kHz-30MHz rx • All modes • Adjustable up to 100W (25W AM) • Selectable Class-A 25W SSB output • Self-contained 117/200VAC power supply, 13.8VDC optional • Built-in TCXO • Dual receive with independent AGC systems • Integrated digital bandwidth tracking • Enhanced DSP • Digital SSB mic equalizer and RF speech processor • Selectable digital modulation/demodulation • Digital auto-notch • Variable RF front-end filter • Selectable SSB pattern-contour filters • Three RF preamp modes +IPO (Direct Mixer Feed) • IF filter chain includes 10-pole Collins mechanical filter • Built-in antenna tuner • Electronic memory keyer • Outstanding CW features • Ergonomic, multi-function shuttle jog dial • 16"w x 5.3"h x 13.7"d, 33 lbs..... **$1739.99**

Available Accessories:
DVS2 Voice recording module, **FH1** Remote control keypad, **FP29** Power supply for FTV1000, **FTV1000** 200W 6M transverter, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH31B8** Extra hand mic, **SP8** External speaker with filters, **TCXO6** Deluxe TCXO unit, **YF110CN** 250Hz CW filter/XFF, **YF110SN** 2kHz SSB filter/XFD, **YF114CN** 250Hz CW second IF main receive, **YF114SN** 2kHz SSB second IF main receive, **YF115C** 500Hz CW/Collins Mechanical filter, **YH77STA** Stereo headphone

SINGLE BAND MOBILE RADIOS

The AR-147+, 247 and 447 include features expected in a modern mobile including AM air receive (147+ only), direct frequency entry, lots of memory channels and more. Both CTCSS and DCS to ensure compatibility with all repeater systems. • MARS/CAP capable • 80 multi-function memories plus call • Auto repeater offset • 9 DTMF autodialer memories + redialer • Programmable band, memory scan and frequency/channel display • DTMF paging • Dual frequency watch • PC programmable

AR-147+ 2M Mobile Transmit: 144–148MHz • Receive: 118–171MHz • Three power settings (60, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs..... **$149.99**

AR-247 220MHz Mobile Transmit: 222–225MHz • Receive: 216–229MHz • Three power settings (30, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs..... **$209.99**

Available Accessories:
MTGBKT Mobile bracket, **PROG47** PC programming software and cable, **PWRCORD** DC cable

SINGLE BAND MOBILES

DR-135TP 2M Mobile/Base Voice/Data Transceiver 144–148MHz tx; 118–135.995MHz (AM aircraft), 136–173.995MHz rx • 50/10/5W • Wide or narrow FM • 1200/9600bps TNC • 100 alphanumeric memories • 7-character, 3-mode display • CTCSS/DCS, 4 Euro bursts • Backlit DTMF mic • 10 autodial memories • Multi scan modes • Front panel GPS input • Rear PC connection • Ignition key on/off • Theft alarm • 13.8V DC @ 11A • 5.58"w x 1.57"h x 6.83"d, 2.3 lbs.. C/O **$249.99**

DR-135TPMKII Same as 135TP with addition of ± 2.5ppm crystal and new digital board.. **$269.99**

DR-135TMKII Same as 135T with addition of ± 2.5ppm crystal and new digital board..... **$169.99**

DR-235T 135T, but covers 222–224.995MHz tx, 216–279.995MHz rx • 25W/10/5W..... **$249.99**

DR-435TMKII Same as 435T with addition of ± 2.5ppm crystal and new digital board..... **$269.99**

Available Accessories:
EDC37 DC cable, **EDC43** Cigarette lighter cable, **EJ40U** Digital board (T and TP's only), **EJ41U** 1200/9600 TNC (T and TMKII's only), **EJ47U** Digital board (MKII's only), **ERW4** PC cable, **HK130** Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable, **SW620** Windows programming software

HF RADIOS

Manufacturer	ALINCO*	ALINCO	ICOM*	ICOM*	ICOM	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD*	KENWOOD*	KENWOOD	KENWOOD	KENWOOD	MFJ
Model	DX-70TH	DX-77T	IC-703 IC-703PLUS	IC-706MkIIG	IC-718	IC-746PRO	IC-756PROII	IC-7800	TS-2000, TS-B2000 TS-2000X	TS-50S	TS-480HX	TS-480SAT	TS-570D(G)	TS-570S(G)	TS-870S	9015
Bands	HF, 6M	HF	HF 6M (Plus only)	HF, 6M 2M, 70CM	HF	HF, 6M, 2M	HF, 6M	HF, 6M	HF, 6M, 2M 70CM, 1.2gHz	HF	HF, 6M 60M	HF, 6M 60M	HF	HF, 6M	HF	15M
Rx Range (MHz)	.15-30, 50-54	.5-30	.03-30 30-60 (Plus only)	.03-200 400-470	.03-30	.03-200	.03-60	.03-60	.03-60, 142-152 420-450 1240-1300*	.5-30	.5-60	.5-60	.5-30	.5-30, 6M	.1-30	21-21.2
Power (SSB/CW/FM)	100W	10-100W	10/5W	5-100 HF/6M 5-50 2M 2-20 70CM	5-100W[7]	5-100	5-100W	5-200W	100W HF/6/2M 50W 70CM 10W 1.2gHz*	100W	200W HF[10] 100W 6M	100W	5-100W	5-100W	100W	5W CW
Power (AM)	40W	4-40W	2/4W	2-40W HF/6M 2-20W 2M 2-8W 70CM	2-40W	5-40W	5-40W	5-50W	25W HF/6/2M 12.5W 70CM 2.5W 1.2gHz*	5-40W	5-25W	5-50W	5-25W	5-25W	25W	No
DSP	No	No	Yes	Yes	Optional	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
Tuner	No	No	Yes	Optional	Optional	Internal	Internal	Internal	Yes	No	Optional	Yes	Yes	Yes	Yes	No
Keyer	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
Speech Readout	No	No	Optional	Optional	Optional	Optional	Optional	Yes	Optional	No	Optional	Optional	Optional	Optional	Optional	No
VOX	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
Power Requirements	12VDC 20A	12VDC 20A	9-15.8VDC 2/3A	12VDC 20A	12VDC 20A	12VDC 20A	12VDC 23A	85-265VAC	12VDC 20.5A	12VDC 20.5A	12VDC 41A	12VDC 20.5A	12VDC 20.5A	12VDC 20.5A	12VDC 20.5A	12VDC 12A
Antenna ports	2[1]	1	1	2[3]	1	3[4]	2	4	5	1	2	2	2	2	2	1
Computer Port	No	Optional	Yes	Optional	Optional	Optional	Optional	Yes	Yes	Optional	Yes	Yes	RS-232	RS-232	RS-232	No
Height (in.)	2.3	3.7	2.3	2.3	3.75	4.7	4.3	5.9	3.75	2.4	2.4	2.4	3.8	3.8	4.8	2.5
Width (in.)	7	9.8	6.56	6.6	9.44	11.3	18.3	16.6	10.625	7.1	7	7	10.6	10.6	13	6.5
Depth (in.)	9	9	4.87	7.9	9.40	12.5	11.2	17.1	12.5	9.2	10.2	10.2	10.7	10.7	13.1	6
Weight (lbs.)	6	8.4	4.4	5.5	8.4	19.5	21	55	17.19	6.4	7	7	15	15	25.4	2

Manufacturer	MFJ	MFJ	MFJ	MFJ	MFJ	MFJ	SGC*	SGC*	SGC	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU
Model	9020	9030	9040	9420X	9440X	9475X	04-01 SG-2000	04-10 POWERTALK	05-01/05-04 SG-2020	FT-817ND	FT-840	FT-847	FT-857D	FT-897D	FT-1000MP	MK V FIELD MKV
Bands	20M	30M	40M	20M	40M	75M	HF	HF	HF	HF, 6M 2M, 70CM	HF	HF, 6M 2M, 70CM	HF, 6M 2M, 70CM	HF, 6M 2M, 70CM	HF	HF
Rx Range (MHz)	14-14.075	10.1-10.15	7-7.15	14.15-14.35	7.15-7.3	3.75-4	.5-30	.5-30	1.8-29.7	.1-56 76-154 420-470	.1-30	.1-30, 36-76 108-174 420-512	.1-56, 76-108 118-164 420-470	.1-56, 76-108 118-164 420-470	.1-30	.1-30
Power (SSB/CW/FM)	5W CW	5W CW	5W CW	12W SSB	12W SSB	12W SSB	150W SSB/CW	150W SSB/CW	0-20W SSB/CW	5W	100W[2]	5-100W HF/6M 50W 2M/70CM	100W HF 50W 2M 20W 70CM	100W HF/6M[8] 50W 2M[8] 20W 70CM[8]	200W	100W
Power (AM)	No	No	No	No	No	No	40W	40W	No	1.5W	25W	25W HF/6M 12.5W 2M 12.5W 70CM	25W HF 12.5 2M 5W 70CM	25W HF/6M[9] 12.5W 2M[9] 5W 70CM[9]	50W	25W
DSP	No	No	No	No	No	No	No	Yes	No	No	No	Yes	Optional	Yes	Yes	Yes
Tuner	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes
Keyer	No	No	No	No	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Speech Readout	No	No	No	No	No	No	No	No	No	No	No	Optional	No	No	No	No
VOX	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes
Power Requirements	12VDC 12A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 30A	12VDC 30A	12VDC 5A	12VDC 2A	13.8VDC 22A	13.8VDC 22A	12VDC 22A	13.8VDC 22A	FP29 30V (supplied)	125VAC 13.8VDC
Antenna ports	1	1	1	1	1	1	1	1	1	2	1	4[5]	2	2	2	2
Computer Port	No	No	No	No	No	No	Optional	Optional	Optional	Yes	Optional	RS-232	Optional	RS-232	Yes	Yes
Height (in.)	2.5	2.5	2.5	2.5	2.5	2.5	4.6	4.6	2.75	1.5	3.7	3.4	2	3.14	5.4	5.3
Width (in.)	6.5	6.5	6.5	6.5	6.5	6.5	10	10	6	5.3	9.4	10.2	6.1	7.9	16.4	16
Depth (in.)	6	6	6	6	6	6	15	15	7.25	6.5	9.6	10.6	9.2	10.3	13.9	13.7
Weight (lbs.)	2	2	2	2	2	2	12	12	2.5	2.6	12	14.4	4.6	8.6	31	33

*Remotable control head
*Optional module required for TS-2000 and B versions
(1) One port for HF; one port for 6M
(2) Optional board required for FM
(3) HF/6M one port, 2M/440MHz second port
(4) Two ports for HF, one dedicated for 2M
(5) Port per band. HF/6M can be combined
(7) No FM
(8) On internal batteries: 20W (10W on 70cm)
(9) On internal batteries: 5W (2.5W on 70cm)
(10) Requires DC 13.8V power supply

FREE ITEMS included with some radios.
See Price Guide for details.

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ALINCO

AMATEUR'S VALUE LEADER™

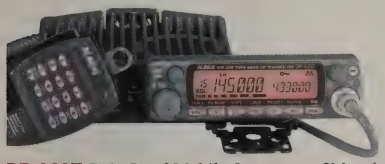
DR-M06TH 6M FM Transceiver Covers 50-54MHz • FM, selectable 20/1W output • 100 memories plus CALL channel • 50 tone CTCSS encoder • Programmable repeater offset for each memory channel • Time-out-timer • 13.8V DC @ 3A • 5.5"w x 1.5"h x 4.5"d, 1.6 lbs • Includes DTMF hand mic **$259.99**

Available Accessories:
HK130 Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable

DUAL BAND MOBILES

DR-605TQ FM Dualbander 144–147.995MHz, 430-449.995MHz tx; 136–173.995MHz, 420–470 MHz rx • 50/10/5W (VHF), 35/10/5W (UHF) • 50 memories, 1 call per band • Cross band repeat, full duplex • Dual VHF/UHF only displays • Multi scan functions • CTCSS encode, 3 European tone bursts • Twin volume controls • Packet compatible • Cable cloning • Internal antenna duplexer • 13.8V DC @ 11.5A • 5.58"w x 1.57"h x 6.8"d, 2.4lbs .. **$339.99**

Available Accessories:
EDS8 EMS14–DR605 adapter, **EMS14** Desk top mic, **HK130** Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable



DR-620T Twin Band Mobile Operates on 2M and 70cm. 144-147.995, 430-449.995MHz transmit, and 108-173.995, 335-480, 87.5-108MHz receive. AM Aircraft band reception and MARS modifiable. VHF/UHF operation includes V/U, V/V and U/U (Not capable of full-duplex V/U,V/V,U/U operation). • 200 memories • 50/10/5W VHF, 35/10/5W UHF • Built-in duplexer • Large, alphanumeric, selectable color display • Removable control head can be remote mounted or allow transceiver to be inverted • Optional 1200/9600 bps packet • Direct GPS input for APRS mobile tracking (optional) • Digital voice (optional) • Illuminated DTMF mic allows direct VFO frequency entry and remote control • CTCSS/DCS encode/decode (4 tone bursts) • Programmable VFO and memory scan including timed, busy and skip modes • Time-out timer • Busy-channel lock out • Temperature-compensated crystal oscillator • Ignition key power on/off feature • Power supply voltage display • Theft alarm • 5.5"w x 1.6"h x 7.3"d, 2.2 lbs..... **$339.99**

Available Accessories:
EDCS9 Separation kit, **EJ47U** Digital board, **EJ50U** TNC unit, **ERW4** PC cable, **HK130** Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable, **SW620** Windows programming software

ICOM

SINGLE BAND MOBILE

IC-2100H-25N Rugged 2M Transceiver Icom's best performer against IMD. Straight-forward operation • 50/10/5W • 144-148MHz transmit • 136-174 MHz receive • One-touch button operation • 113 memories • Dual, alphanumeric, selectable green/amber backlit display • Backlit TTP mic with 2 programmable keys • One-piece, diecast aluminum chassis • Adjustable attenuator • CTCSS tone enc/decode (50 tones) • Tone scan • Auto repeater with busy lockout • Priority watch • Cloning capability • Mounting bracket • Built to military spec for shock and vibration • Requires 13.8V DC @ 12A • 5.5"w x 1.6"h x 7.1"d, 2 lbs., 10 oz..... **$169.99**

Available Accessories:
BC96 Microphone holder, **CSW2100** Windows software and cable, **CS2100** DOS cloning software, **EX1759** Infrared receiver, **HM133S** Extra touch-tone mic, **HM90A** Wireless microphone, **MB17A** Quick release bracket, **MB28H** Mobile bracket, **OPC346** 9.8' DC cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' microphone extension cable, **SP10** Slim-line external spkr

IC-2200H 2M FM Transceiver Offers new digital features while retaining the user interface from the popular IC-2100H. The large tuning dial provides easy access without even looking at the front panel. Secondary functions are easily recalled by holding the appropriate button. • 144-148MHz transmit, 118-174MHz receive (includes AM aircraft band and weather channel with alert) • 65/25/10W selectable • FM-Narrow mode, switchable • 207 memories (including 6 scan edges and 1 call channel) • Dynamic Memory Scan (DMS) • 50 CTCSS and 104x2 DTCS encode/decode plus tone scan functions and "pocket beep" • 24 DTMF autodial memories • Selectable green and amber display • Includes remote control microphone, DC power cable, mobile mounting bracket and microphone hanger • 5.5"w x 1.56"h x 5.25"d, 2.75 lbs..... **TBA**

Used & Demo
Equipment lists
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IC-V8000 2M FM Transceiver 75W output power – a first! • TX 144-148, RX 136-174MHz • 207 alphanumeric memory channels including 1 call channel, 6 scan edges • Weather alert and weather channel scan • DMS scan system • Each memory channel stores a 6 character name, tone frequency, skip info, and more • Priority watch • CTCSS/DTCS • Dynamic Memory Scan, customize/manage memory banks • DTMF encode and pager function capability • 10 DTMF memory channels with up to 24 digit DTMF codes • Versatile cloning from transceiver to transceiver or PC to transceiver • Front mounted speaker • One-piece, die-cast, rugged, aluminum chassis • Large cooling fan on the back and large cooling fins • Selectable green or amber display • Includes HM-133V remote control microphone • 5.9"w x2"h x 5.9"d, 2.22 lbs..... **$189.99**

Available Accessories:
CSV8000 Windows software, **OPC1132** 9.8' DC cable, **OPC347** 23' DC cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC cable, **OPC478U** PC USB cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable, **SP10** Slim-line external speaker, **UT108** DTMF decoder unit, **V8000MMB** Mobile bracket

DUAL BAND MOBILES

IC-2720H 2M/70cm FM Transceiver Provides VHF/VHF, UHF/UHF simultaneous receive capability along with VHF/UHF full duplex. • Wide/narrow channel spacing • 144-148, 430-450MHz tx • Extra wideband (cell blocked) receive 118-550MHz (left), 118-174, 375-550, 810-999MHz (right) • Weather, WX alert, and Air bands • 212 memories (10 banks), 2 call, 10 scan edges • Auto repeater function • 50/35W (2M/70cm) • Full function, backlit remote control mic with "hot keys" • Wide viewing angle • Independent controls for each band • 12 DTMF memories • User-selectable amber/green display • CTCSS/DTCS enc/decode, tone scan and pocket beep • Dynamic memory scan • Control head and main unit mic jacks • 1200/9600 bps 6-pin terminal • PC programmable (optional software and cable) • 11.5' separation cable included • 13.8V DC @ 12A • 5.5"w x 2" h x 1.1"d, 5.29 oz. (head), 5.5"w x 1.6 "h x 7.4"d, 3.08 lbs. (main) **$369.99**

Available Accessories:
CS2720 Windows/DOS cloning software, **MB17A** Quick release bracket, **MB65** Mounting base platform, **MB84** Remote controller bracket, **MB85** Combination bracket, **OPC1132** 9.8' DC cable, **OPC1156** 11.5' separation cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning software, **OPC478** PC RS232C cable, **OPC478U** PC USB cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable, **SP10** Slim-line external speaker

ICOM

IC-208H 2M/440 **Dualband Mobile** More power, wider receive, lots of memory! Powerful 55/50W (2M/440) output • 118-173, 230-549, 810-999MHz (cell blocked) wide band receive • Weather channel and alert • 500 6-character alphanumeric memory channels • Improved Dynamic Memory Scan (10 banks, 2-100 channels per bank) • New bank listing allows selection of banks you want to scan • Built-in CTCSS/DTCS tone squelch • Operate with control head attached or remote mounted with included cable • Pocket beep and tone scan • 16 DTMF memories • 9600bps data connector • Auto repeater function • Multicolor display lighting and backlit buttons • Remote control microphone included • 5.56"w x 1.56"h x 7.31"d, 2.65 lbs..... **$299.99**

Available Accessories:
CS208 Windows cloning software, **MB17A** Quick release bracket, **MB58** Remote controller bracket, **MB65** Mounting base platform, **OPC1132** 9.8' DC cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC RS232C cable, **OPC478U** PC USB cable, **OPC589** 8-pin mic jack adapter cable, **OPC601R** 23' separation kit, **OPC647** 8.2' mic extension cable, **SP10** Slim-line external speaker

FREE ITEMS included with some radios. See Price Guide for details.

KENWOOD

SINGLE BAND FM MOBILE TRANSCEIVERS

TM-271A 2M FM **Transceiver** Delivers powerful mobile performance with 60W output and other great features such as multiple scan functions and memory names. MIL-STD compliant, high quality audio, illuminated keys and a large LCD with adjustable green backlighting • 200 memories • FM wide/narrow • N.O.A.A. weather band reception with warning alert tone • CTCSS, DCS and 1750Hz tone burst • Auto repeater offset • FREE Memory Control software available online **$189.99**

Available Accessories:
MJ88 Modular/8-pin adapter, **PG2N** DC cable, **PG5D** PC interface cable, **SP50B** External mobile speaker

TM-461A 440MHz Fully loaded with features and built to MIL-STD specifications. Supremely user-friendly. • 438-450MHz transmit; 400-470MHz receive • 35/10/5W • High RF output • 61 multi-function memories plus 1 call channel • Memory Name (MN) function with 6-digit alphanumeric display • DTSS selective calling • Multi-scan capability • Dual menu system • Multi-function microphone with backlit keys • DTMF memory function • Built-in CTCSS tone encoder (optional decoder) • Tone scan • Wireless cloning function • Repeater reverse switch • Lock function • Busy channel lock out • Auto power-off • Time-out timer • 13.8V DC @ <11A • 5.5"w x 1.5"h x 6.3"d, 2.2 lbs..... **$439.99**

Available Accessories:
MB201 Mobile brket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **SP50B** External mobile spkr, **TSU8** CTCSS decoder

TM-541A 1200MHz **FM Mobile Transceiver** Extremely compact and lightweight, perfect for mobile installation. Enhanced night-time operation with its illuminated keys, large LCD, and backlit microphone with DTMF. Covers 1240-1300MHz transmit and receive • 10W RF power output • Easy-to-read, easy to operate illuminated keys plus large LCD display • 20 multi-function memory channels plus call channel • Built-in CTCSS tone encoder • ALT (Automatic Lock Tuning) • Tone alert system with elapsed time indicator • DTSS (Dual Tone Squelch System) • Pager function • Auto-power off • Time-out timer • Multi-scan function • Programmable call • Programmable VFO • Offset and repeater reverse switches • Multi-function backlit DTMF microphone supplied • 13.8V DC @ <6A • 5.5"w x 1.5"h x 6.3"d, 2.4 lbs..... **$449.99**

Available Accessories:
KQT8 CTCSS decoder, **MB201** Mobile bracket, **PG2N** DC cable, **SP50B** External mobile speaker

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DUAL BAND UHF/VHF MOBILES

High performance mobiles that receive three bands simultaneously (with optional band unit) with triple display. Available detachable front panel and wireless remote control functions (external DTMF signal) add versatility. • Selectable frequency step • Built-in DTSS selective calling with page • 101 memories/memory bank system • Flexible scan and scan stop modes • Tone alert with elapsed time indicator • Triple repeater functions • S-meter squelch • Separate antenna and speaker terminals, squelch and volume control per band • Automatic band change • Sub-band muting • Date/time display, stopwatch, alarm • On/Off and time-out timers • 13.8V DC @ <11A • 5.9"w x 1.5"h x 6.8"d, 3.3 lbs.

TM-642AD 2M/220MHz *(pictured)* 144-148MHz transmit/118-174MHz receive and 222-225MHz transmit/215-235MHz receive • 50/10W (2m); 25/10W (220MHz)..... **$739.99**

TM-742AD 2M/440MHz 144-148MHz tx/118-174MHz rx and 438-450MHz tx/410-438MHz rx • 50/10W (2m); 35/10W (440MHz) • Looks like TM-642AD except frequency display **$639.99**

Available Accessories:
DFK3 9' separation display cable kit, **DFK4** 13' remote cable kit, **DFK7** Deluxe 22' remote kit, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **SP50B** External mobile spkr, **TSU7** CTCSS decoder unit, **UT1200** 10W 1.2GHz unit, **UT220S** 25W 220MHz unit (for TM-742AD only), **UT440S** 35W 440MHz unit (for TM-642AD only), **UT50S** 50W 6M unit

TM-G707A 144/440MHz **FM Dual Band** Extraordinarily user-friendly with extra-large detachable control panel. 144-148, 430-450MHz transmit; 118-174, 410-524MHz receive • 50/10/5W (VHF); 35/10/5W (UHF) • Detachable control panel with high-visibility amber LCD display • 180 multi-function alphanumeric memories • Multi-scan functions • Priority scan function • Built-in CCTSS encoder and decoder • 1200/9600bps packet ready • Cross band repeater access • Selectable frequency step • S-meter squelch • Time-out timer • Dimmer control • Auto power-off • Multi-function backlit microphone with DTMF • 13.8VDC @ 11A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs..... **$269.99**

Available Accessories:
DFK3C 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet data cable, **SP50B** External mobile speaker, **VS3** Voice synthesizer

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KENWOOD

TM-D700A **144/440MHz Dual Band Data Communicator** Fully equipped to complement SSTV, GPS and APRS®. 144-148, 430-450MHz transmit • 118-148, 136-175, 300-524, 800-1300MHz wide band receive (cell blocked) • 50/10/5W (VHF); 35/10/5W (UHF) • Detached control panel with extra-large backlit LCD and multi-function key display • Backlit microphone with alphanumeric input • Easy-to-use menu system • Advanced APRS-99 features • Built-in 1200/ 9600 bps TNC (AX.25) • DX cluster monitoring • Dual receive on same band for voice and data • 200 alphanumeric memories • 2 call channels • 10 programmable memory scan banks • Built-in CTCSS and 1750 tone burst • Digital Code Squelch (DCS) • DTMF memory • Cross band and fixed band repeater operation • DCS code scan, tone, CTCSS scan • 10-channel program scan • Visual band scope • 13.8VDC @ 11.5A • 5.5"w x 2.4"h x 1.2"d, 0.4 lbs. (control), 5.5"w x 1.2"h x 7"d, 2.6 lbs. (main)..... **$519.99**

Available Accessories:
MB201 Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4X** 13' extension cable kit, **PG5A** Packet data cable, **SP50B** External mobile spkr, **VS3** Voice synthesizer

TM-V7A **144/440MHz FM Dual Bander** Easy-to-operate control panel with dual-mode, cool-blue, reversible LCD, offering positive and negative displays. Use with a PC, GPS, packet TNC or operate APRS position reporting and message system locally or nationally. Transmit: 144-148, 430-450MHz; receive: 118-174, 410-470MHz • 50/10/5W (VHF); 35/10/5W (UHF) • Data connector and separate automatic digital channel for APRS® • Detachable control panel • Dual receive on same band • Up to 280 multi-function memory channels (180 with 7-character alphanumerics) • Multi-scan functions • DTSS selective calling with page function • Built-in CTCSS enc/decoder • 1200/9600bps packet ready • Friendly operating menu • Automatic band change • Selectable frequency steps • S-meter squelch • Time-out timer • Audible frequency ID • Auto repeater offset (144MHz) • Auto power-off • Backlit multi-function mic with DTMF • 13.8VDC @ 10A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs..... **$399.99**

Available Accessories:
DFK3C 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet cable, **SP50B** Ext. mobile spkr, **VS3** Voice synthesizer

MFJ ENTERPRISES, INC.

LOW POWER SINGLE BAND SSB MOBILES

No microprocessor – turn on and tune in. • 20W PEP (less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage • Includes handheld dynamic microphone • 3A from 12V supply or battery • Low noise preamp and active double balanced mixer front end • Sharp 2.3kHz SSB crystal ladder filter reduces passband noise and fights QRM • TVI protection • Real S-meter • Agile tuning – reduction drive analog VFO – scan band quickly, zero in smoothly • Amp jack • 2.5"h x 6.5"w x 6"d, 2 lbs.

9402X 2M SSB Adventure Radio™, 7W.. **$269.99**
9406X 6M SSB Adventure Radio™, 10W **$249.99**
9410X 10M 20W Adventure Radio™..... **$239.99**

Available Accessories:
1770A 10M dipole for 9410X, **4110** Portable AC power supply, **4114** Rechargable power pack, **416** CW adapter, **971** 200W HF tuner (9410X only)

VHF DATA RADIOS

Don't tie up your expensive rig on a single packet channel, check out these low-cost MFJ Data Radios.

8621 **PacketOnly™ 2m Transceiver** Compatible with all TNCs with hardware DCDs and most TNCs with software DCDs • 1200/9600 baud • 5W output • Low current drain (15mA on receive and less than 1 amp on transmit) • 5"w x 5"d x 1.5"h • Crystals installed for 145.01MHz **$139.99**

8621X2 **PacketOnly™ 2m Transceiver** Ready for APRS use. • Crystalled and aligned for 144.390MHz • 5W output **$149.99**

Available Accessories:
4110 Portable AC power supply, **5100** Data radio cable (MFJ/TAPR), **5100YH** Data radio cable (KPC9612), **5100YV** Data radio cable (KAM/KPC3), **5106** Open end (6-pin mini Kenwood/Yaesu)

RANGER Communications, Inc.

SINGLE BAND 6M MOBILE

RCI-5054DX **All-Mode 6M Transceiver** Covers 50-54MHz • 10W CW/AM/FM, 25W PEP SSB • 10 programmable memory frequencies • Programmable repeater offset (splits of up to 2MHz) • ± 2.5kHz receiver clarifier • Noise blanker/ANL circuitry • Programmable receiver scanning for quick search of active frequencies • Includes Up/Down tuning hand microphone • 12V DC • Public address feature • 2.4"h x 7.75"w x 10.75"d **$269.99**

DUAL BAND MOBILES

RCI-2950DX **10/12M Transceiver** An old favorite updated with 12M, improved receiver, double FET balanced mixer, surface mount components and improved display lighting. Covers 24.8-24.99, 28-29.7MHz • 25W (SSB), 12W (CW), 10W (AM/FM) • Dual VFO • RIT • Noise blanker • Standard repeater offsets • Programmable tone • Scanning • 10 programmable frequencies • Lockout..... **$269.99**

RCI-2970DX Higher power version. 150W (SSB PEP), 50W (CW/FM/AM) **$399.99**

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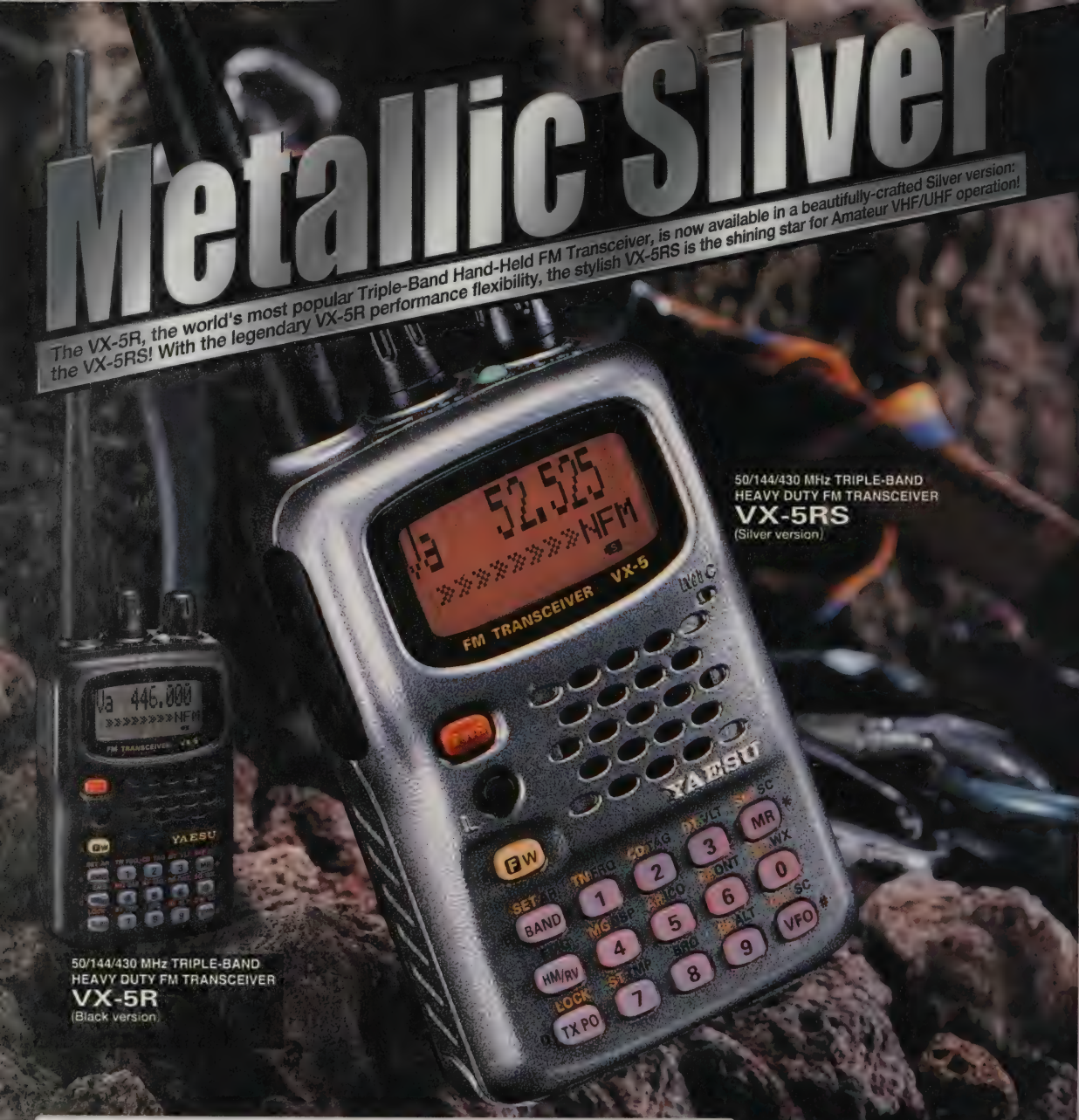
Metallic Silver

The VX-5R, the world's most popular Triple-Band Hand-Held FM Transceiver, is now available in a beautifully-crafted Silver version: the VX-5RS! With the legendary VX-5R performance flexibility, the stylish VX-5RS is the shining star for Amateur VHF/UHF operation!

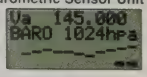


50/144/430 MHz TRIPLE-BAND
HEAVY DUTY FM TRANSCEIVER
VX-5RS
(Silver version)

50/144/430 MHz TRIPLE-BAND
HEAVY DUTY FM TRANSCEIVER
VX-5R
(Black version)

Features

- Ultra Compact: 2.4" x 4.1" x 1.3"
- Aluminum Diecast Case
- MIL-STD 810 Rating
- Optional Barometric Sensor Unit



- Frequency Coverage
  Wide Band Receive
  RX : 0.5-15.995 MHz 48-728.990 MHz
  800-998.990 MHz (Cellular Blocked)
  TX : 50-54 MHz 144-148 MHz
  430-450 MHz
- 5 W Power Output (430 MHz: 4.5 W)
- AM/Shortwave Receive
- AM Aircraft Receive
- Long Life Lithium-Ion Battery: 7.4 V @ 1300 mAh
- CTCSS and DCS Built In
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- Dual Watch
- Spectra-Scope™ Graphical Display
- 220 Memories plus "Home" Channels
- Ten Pairs of "Band Limit" Memories
- Ten Auto-Scan Weather Channels (North American version)
- 8-Digit Alphanumeric Memory Tags
- Convenient Icon Display Mode
- Smart Search™ Automatic Memory Loading
- Automatic Repeater Shift
- Auto-Range Transponder System (ARTS™)
- Multiple Battery Savers
- Time-Out Timer (TOT)
- Busy Channel Lock Out (BCLO)
- Versatile High-Speed Scanning
- 16-Digit 9-Memory DTMF Autodialer
- One-Touch Emergency Channel
- ADMS Windows™ PC Programmable
- Innovative Multi-Section Antenna
- Full Line of Accessories

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ALL MODE
PORTABLE/BASE TRANSCEIVER

60 m Band

FT-897D

HF/50 MHz 100 W/144 MHz 50 W/430 MHz 20 W
20 W (Optional FNB-78 Battery Required)

TCXO DSP

DSP
DIGITAL SIGNAL PROCESSING
Included

ULTRA COMPACT
ALL MODE MOBILE TRANSCEIVER

60 m Band

FT-857D

HF/50 MHz 100 W/144 MHz 50 W/430 MHz 20 W

DSP

FNB-85 1400 mAh Long-Life Ni-MH Battery and NC-72B Charger Included

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ALL MODE PORTABLE TRANSCEIVER

60 m Band

FT-817ND

HF/50/144/430 MHz 5 W

ATAS-25 Manually-Tuned Portable Antenna

The ATAS-25 is a manually-adjusted portable antenna ideal for field use with the FT-817. Designed for mounting on a standard camera tripod (1/4" stud), the ATAS-25 is tuned by sliding the shorting ring of the loading coil up or down and selecting the appropriate number of top sections. Counterpoise wires are supplied.

The ATAS-25 is constructed of high-grade materials for maximum efficiency, and it's the perfect traveling companion for your FT-817!

Freq. Range:	Amateur Bands 7-450 MHz
Max. Power:	HF/50 MHz: 100 W SSB/CW (50% Duty, 1 min. TX/RX)
	AM/FM: 50 W
	144/430 MHz: 50 W
Size:	Max. Length 7'3" (2.2 m)
	Min. Length for Carrying: 2' (0.6 m)
Weight:	2.1 lb. (930 g)

ATAS MICRO

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Over 1000 Memory Channels
with Alpha-Numeric Labels, Twenty Memory Groups

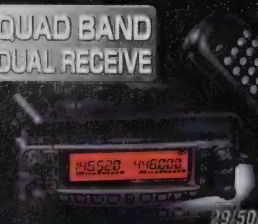
WiRES™ Internet Linking Compatibility

144/430MHz
DUAL BAND

ACTUAL SIZE
*Simulated LCD display

YAESU FM Mobile Series

QUAD BAND
DUAL RECEIVE



FT-8900R 29/50/144/430MHz QUAD BAND
29/50/144/430 MHz FM QUAD BAND TRANSCEIVER

DUAL BAND
DUAL RECEIVE

FT-8800R 144/430MHz DUAL BAND
144/430 MHz FM DUAL BAND TRANSCEIVER

DUAL BAND

FT-7800R
144/430 MHz DUAL BAND
FM TRANSCEIVER

For the latest Yaesu news, visit us on the Internet:
http://www.vxstdusa.com

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

YAESU

Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

NO COOLING FAN
COOL AND QUIET 65 W OPERATION

Yaesu's FT-2800M, the most ruggedly-built 2-meter amateur transceiver ever, provides 65 Watts of power along with Yaesu's renowned bullet-proof receiver front end. Direct keypad frequency entry, Alpha-Numeric Memory System, the high power output, and unsurpassed ergonomics make the FT-2800M an operator's dream come true!

New Ultra-High-Dissipation Heat Sink Design

The all-new heat sink of the FT-2800M provides more effective cooling than any other design, allowing long transmission periods without dangerous heat build-up or power reduction due to thermal protection.

High power output, a huge, easy-to-read display, and one-touch WIRES™ Internet Linking Access capability are yours with the exciting new FT-2800M.

On transmit, the 65 Watts of true FM power output provides you with excellent coverage and superb voice clarity. On receive, you get extended coverage of 134-174 MHz, with a special memory bank dedicated to the NOAA Weather Broadcast Channels (U.S. version only).

Built to the exacting requirements of both the commercial radio industry, as well as the U.S. military's MIL-STD 810, the FT-2800M is constructed using an aluminum diecast chassis/heatsink assembly, providing outstanding mechanical and thermal stability for the internal components.

With superb ergonomics to go along with its stout RF design, the FT-2800M is ready for action, at home or away!

HEAVY-DUTY VHF FM TRANSCEIVER

FT-2800M

ACTUAL SIZE

YAESU

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US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

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Specifications subject to change without notice. Some accessories and options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu dealer. Some features are guaranteed only for Amateur band.

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

SINGLE BAND MOBILE TRANSCEIVERS

Manufacturer	ADI	ADI	ALINCO	ALINCO	ALINCO	ALINCO	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	MFJ	MFJ
Model	AR-147+	AR-247	DR-M06TH	DR-135TMKII, TP, TPMKII	DR-235T	DR-435TMKII	IC-2100H-25N	IC-2200H	IC-V8000	TM-271A	TM-461A	TM-541A	8621	8621X2
TX Range (MHz)	144-148	222-225	50-54	144-148	222-224.995	430-449.995	144-148	144-148	144-148	144-148	438-450	1240-1300	145.01	144.39
Rx Range (MHz)[4]	118-171	216-229	40-60[3]	118-174	216-279.995	350-511.995	136-174	118-174	136-174	136-174	400-470	1240-1300	145.01	144.39
Aircraft Rx	Yes	N/A	N/A	Yes	No	No	No	Yes	No	No	Yes	No	No	No
Power Output	60/15/5W	30/15/5W	20/1W	50/10/5W	25/10/5W	35/10/5W	50/10/5W	65/25/10W	75/25/10/5W	60W	35/10/5W	10W	5W	5W
TTP Microphone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes/DCS	Yes	Yes	Yes	No	No
Tone Decode	Yes/DCS	Yes/DCS	EJ-20U	Yes	Yes	Yes	Yes	Yes	Yes/DCS	Yes/DCS	TSU-8	KQT-8	No	No
Memories	80	80	100	100	100	100	113	207	207	200	62	20	0	0
Alphanumeric	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
PC Programmable	Yes	Yes	N/A	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No
13.8V DC@	12A	8A	5A	11A	8A	10A	12A	15A	15A	13A	10A	6A	>1A	>1A
Antenna Conn	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	Type-N	SO-239	SO-239
Size (h/w/d, in.) Weight (lbs.)	1.5/5.5/6.5 2.65	1.5/5.5/6.3 2.65	1.6/5.5/4.5 1.5	1.6/5.6/6.9 2.3	1.6/5.6/6.9 2.3	1.6/5.6/6.9 2.3	1.6/5.5/7.1 2.5	1.6/5.5/5.3 2.75	2.0/5.9/5.9 2.22	1.7/6.3/5.4 2.6	1.7/5.5/6.6 2.2	1.6/5.5/6.3 2.4	1.5/5/5 0.8	1.5/5/5 0.8

Manufacturer	MFJ	MFJ	MFJ	RANGER	YAESU
Model	9402X	9406X	9410X	RCI-5054DX	FT-2800M
TX Range (MHz)	144-144.3	50-50.3	28.3-28.6	50-54	144-148
Rx Range (MHz)[4]	144-144.3	50-50.3	28.3-28.6	50-54	137-174
Aircraft Rx	No	No	No	No	No
Power Output	7W SSB	10W SSB	20W SSB	10/25W	65/25/10/5W
TTP Microphone	No	No	No	No	Yes
Tone Encode	No	No	No	No	Yes
Tone Decode	No	No	No	No	Yes/DCS
Memories	0	0	0	10	221
Alphanumeric	No	No	No	No	Yes
PC Programmable	No	No	No	No	No
13.8V DC@	2A	3A	3A	7A	10A
Antenna Conn	SO-239	SO-239	SO-239	SO-239	SO-239
Size (h/w/d, in.) Weight (lbs.)	2.5/6.5/6 2	2.5/6.5/6 2	2.5/6.5/6 2	2.4/7.75/10.75 1	2/6.3/7.3 4

* Remotable control head
(1) Requires keyboard modification
(2) Expanded memory requires optional EJ-19U
(3) 2 Piece configuration only
(4) 2M/220MHz Transceiver
(5) All models are Cellular Blocked
(6) AM aircraft receive mode
(7) Does not include projections (knobs, antenna jacks, etc.)
(8) Manufactuer only guarantees specs within the ham bands
(9) Requires internal modification (available on request)
(10) There are gaps in non-voice or data portions in certain bands
(11) Control head separate from body
(12) FT-8900R includes 10M/6M as well
All radios are cell blocked

FREE ITEMS included with some radios.
See Price Guide for details.

MULTI BAND MOBILE TRANSCEIVERS

Manufacturer	ALINCO	ALINCO	ICOM	ICOM*	KENWOOD[11]	KENWOOD*	KENWOOD*	KENWOOD	KENWOOD*	RANGER	RANGER	YAESU	YAESU	YAESU
Model	DR-605TQ	DR-620T	IC-208H	IC-2720H	TM-D700A	TM-G707A	TM-V7A	TM-642AD[4]	TM-742AD	RCI-2950DX	RCI-2970DX	FT-7800R	FT-8800R	FT-8900R
Tx Range[5,8]	144-148 430-450	144-148 430-450	144-148 440-450	144-148 430-450	144-148 438-450	144-148 438-450	144-148 438-450	144-148 220-225	144-148 438-450	24.8-24.99 28-29.6999	24.8-24.99 28-29.6999	144-148 430-450	144-148 430-450	28-29.7,50-54 144-148 430-450
Rx Range (MHz)[5,8]	136-174 420-470	87.5-108 (WFM) 108-174 335-480	118-174[6] 230-550 810-999	118-550 (left) 118-174, 375-550 810-999 (right)	118-470 (A band)[10] 136-175, 300-524 800-1300 (B band)[10]	118-174 410-524[6]	118-174 410-470[6]	118-174 213-235[6]	118-174 410-470[6]	24.8-24.99 28-29.6999	24.8-24.99 28-29.6999	108-520 700-999	108-520 700-999	28-29.7,50-54 108-180 320-480, 700-985
Single or Dual Rx	Dual	Dual	Single	Dual	Dual	Single	Dual	Dual	Dual	Single	Single	Single	Dual	Dual
Power (2M)[12] Power (440MHz)	50/5W 35/5W	50/35/10/5W 35/10/5W	55/15/5W 50/15/5W	50/20/5W 35/20/5W	50/10/5W 35/10/5W	50/10/5W 35/10/5W	50/10/5W 35/10/5W	50/10/5W 25/10/5W	50/10/5W 35/10/5W	25W SSB 10W CW/FM/AM	150W SSB 50W CW/FM/AM	50W 40W	50/20/10/5W 35/20/10/5W	50W[12] 35W
Memories	100	200	500	212	200	180	280	101	101	10	10	1000+	1000+	800
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Tone Decode	Yes	DCS	Yes	DCS	Yes	Yes	Yes	Opt. TSU-7	Opt. TSU-7	No	No	DCS	DCS	DCS
Duplexer	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
Cross-Band Rpt.	Yes	No	No	Yes	Yes	No	Yes	Yes[9]	Yes[9]	No	No	No	Yes	Yes
Alphanumeric	No	Yes	Yes	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
PC Programmable	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	TBA	Yes	Yes
9600b Compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes[9]	Yes[9]	No	No	Yes	Yes	Yes
Separateable	No	Yes	Yes	Yes	Yes[3]	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Height (in.) (Head) Width (in.) Depth (in)[7] Weight (lbs)	1.6 5.5 6.9 2.4	5.51 1.57 7.28 2.2	1.6 5.6 7.3 2.7	1.6 (2) 5.5 (5.5) 7.4 (1.1) 3 (5.3)	1.6 (2.4) 5.5 (5.5) 7.7 (1.3) 2.6 (6.3)	1.6 5.5 7.4 2.7	1.6 5.5 7.4 2.7	1.9 5.9 6.9 3.9	1.9 5.9 6.9 3.9	2.375 7.75 10.75 4.2	3.875 7.75 9.25 7.4	1.6 5.5 6.6 2.2	1.6 5.5 6.6 2.2	1.6 5.5 6.6 2.2

YAESU

SINGLE BAND MOBILE

FT-2800M **2M FM Transceiver** Cool, quiet, and ruggedly-built; utilizes a new ultra-high dissipation heat sink design that eliminates the need for a cooling fan. • 65/25/10/5W (memory storable) • Direct keypad frequency entry with a backlit mic that includes a 9-memory, 16-digit, DTMF autodialer and 4 user-programmable "soft" keys • Advanced track tuning RF input filtering • Huge alphanumeric channel display • Ergonomic, impact-resistant, MIL spec design (MIL-STD 810) • CTCSS encode/decode and SmartSearch™ auto memory loading • Versatile scanning features a choice of scanning-resume option along with a "preferential" list • WX channels with "Severe Weather" alert (10 weather memories) • WIRES™ internet linking access • 6.3"w x 2.0"h x 7.3"d, 4 lbs **$159.99**

Available Accessories:
MLS100 Mobile speaker, **S8002051** Mobile bracket, **S8101436** DC cable

DUAL BAND MOBILES

FT-7800R **50/40W 2M/440MHz FM Mobile** Designed for simplicity of operation along with a high performance receiver section. Ideal for simplex, repeater, or satellite operation on both bands, without the need for cross-band repeat capability. • 144-148, 430-450MHz transmit • 108-520, 700-999 MHz (cell blocked) receive • N.O.A.A. weather alert • 1000+ memory channels • One-touch operation via five "hyper memory" buttons • Illuminated keypad and microphone keys • WIRES™ capability • 5.5"w x 1.6"h x 6.6"d, 2.2 lbs **$279.99**

Available Accessories:
CT39 Packet cable, **MLS100** Mobile speaker, **MMB60** Quick release mobile mount, **YSK7800** Remote separation kit

Look For This

NEW

& Check Out AES' Latest Additions.

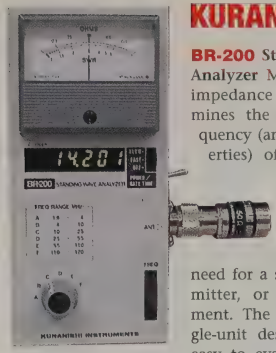
FT-8800R **Dualband FM Mobile Transceiver** With easy operation, outstanding receiver performance, and crossband repeat capability, the 8800R is the new standard of comparison! • 144-148, 430-450MHz transmit • 108-520, 700-999 (cell blocked) wide frequency coverage (keep informed in the public safety, commercial, aircraft, and government ranges) • Independent 2-channel operation – dual receive with one band as the main TX/RX band • Separate volume and squelch controls for each band • Ability to configure 8800R for VHF-VHF or UHF-UHF operation• 50W on 144MHz, 35W on 430MHz • Over 1000 memory channels, 512 "regular" on each band, five "Home," ten sets of band-edge memories on each band, and six "Hyper Memories" (complete sets of transceiver configurations) • Large, easy-to-read OmniGlow™ LCD with 4 illumination levels • Cross-band repeat capability • One-touch band pattern • CTCSS/DCS (50/104 tone) • User-programmable mic keys • Convenient remote-head mounting capability (optional kit required) • 5.5"w x 1.6"h x 6.6"d, 2.2 lbs **$369.99**

FT-8900R **Quad Band FM Mobile** National or world-wide FM communications from a vehicle! • 28-29.7, 50-54, 144-146, 430-440MHz tx • 28-29.7, 50-54, 108-180, 320-480 and 700-985MHz (cell blocked) wide frequency receive • 50W (10/6/2M), 35W (430MHz) high power output • FM satellite operation • Over 800 memories • DTMF auto-dial memory • One-touch band-pattern "Hyper-Memory," allows set up and storage of complete transceiver configuration settings. Saves button pushing! • CTCSS/DCS encode/decode • SmartSearch™ auto memory loading • Cross band repeat • Independent, 2-channel, dual receive and full duplex (separate volume and squelch controls, as well as S-meters) • Built-in duplexer • WIRES™ compatible • RF squelch • Auto repeater shift • ARTS™ capable • User-programmable microphone keys • Easy set up for FM satellite operation • Battery voltage meter • Time-out timer • Automatic power off • Large, easy-to-read LCD display • 1200/9600 bps packet • Thermal-sensored cooling fan • Remote head mounting capability • Looks similar to FT-8800R • 5.5"w x 1.6"h x 6.6"d, 2.2 lbs **$419.99**

Available Accessories:
ADMS2H Programming software (8900R), **ADMS2I** Programming software (8800R), **CT39** Packet cable, **MLS100** Mobile speaker, **MMB60** Quick release mobile mount, **MMB62** Remote control panel bracket, **T9021810** DC cable, **YSK8900** Remote separation kit

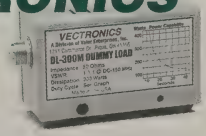
FREE ITEMS included with some radios. See Price Guide for details.

KURANISHI



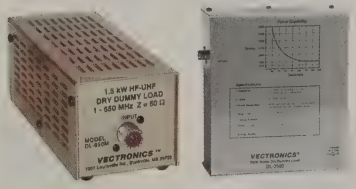
BR-200 **Standing Wave Analyzer** Measures SWR, impedance and determines the resonant frequency (and other properties) of an antenna system. Take it right to the antenna! Works without the need for a separate transmitter, or other equipment. The compact, single-unit design makes it easy to evaluate HF and VHF antenna system performance by yourself, and its intuitive displays make antenna adjustments quick and accurate. Wide-band, covers systems from 1.7-180MHz. Built-in frequency counter for direct frequency readout. Precision 50Ω dummy load included. Low current drain, typically works for 14 hours using 6 AA's (not supplied). Small and easy to handle: 3.25"w x 6.75"h x 2.5"d, 1.8 lbs (including batteries) **$389.99**

VECTRONICS



DUMMY LOADS

DL-300M **Dry Dummy Load** Simulates an accurate 50Ω antenna up to 150MHz. Test or tune up your transmitter without radiating a signal on the air. Power handling curve rated at 300W for 15 seconds, to 100W for 40 seconds. VSWR <1.3:1 at 150MHz. 5"h x 2"d x 2.875"h, 8 oz..... **$44.99**



DL-650M **Dry Dummy Load** *(left)* Good all the way up to 650MHz. Power handling curve is rated at 1500W for 10-seconds, down to 100W for 10 minutes. VSWR <1.3:1 at 500MHz..... **$74.99**

DL-2500 **High-Power Dry Load** *(right)* A fan cooled heavy-duty load for up to 150MHz. Power handling curve rated at 2500W for 1 minute, down to 500W for 10 minutes..... **$179.99**

SWR/POWER METERS

PM-30HF Similar to pic. RMS or PEP forward and reflected power and SWR simultaneously. Lighted cross-needle meter. Covers 1.8-60MHz, 300/3000W ranges. 5.313" w x 3.5"h x 5.75"d, 1.2 lbs.. **$79.99**

PM-30UV *(shown)* Same features as the PM-30HF, but covers 144, 220 and 450MHz bands.... **$89.99**

Coaxial Dynamics

RF DIRECTIONAL WATTMETERS

81000-A RF Directional Wattmeter Accurate RF Power measurement in 50Ω coaxial systems. Uses an internal line section and "Quick Match" plug in elements in the range of 0.1–10,000 watts full scale, and from 0.45 to 2300MHz.

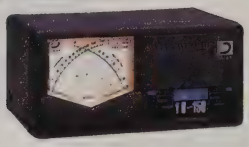
Simply plug in the appropriate measuring element and select forward or reflected direction. Measured average RF power is indicated directly on the large 4.5" "taut-band" meter with three scale display. The meter is also mirrored and shock mounted to provide the most reliable and accurate readings.

Strong shock-proof housing. With SO-239 connectors (Type-N female Special Order)..... **$260.99**

83000-A RF Peak Reading Wattmeter Similar in appearance and operation to the standard Model 81000-A wattmeter. Contains an amplifier which allows measuring of both Average and Peak Envelope Power (PEP) with the flip of a switch. Internal 9V battery is required and supplied for peak reading mode..... **$393.99**

ALAN BROADBAND ZAP-CHECKER Broadband Field Strength Bug Detector A wideband (10MHz to 4.5GHz) receiver that provides visual indications of the presence or RF energy. Sensitive, detects 2.4 GHz bugs at 40 feet. Analog meter and LED displays, for viewing at a distance and at nighttime. Silent vibrator mode for in-pocket detection and hands-free operation. Use for bug detection, wireless, aircraft maintenance, heath/environmental and ham radio. Detects and measures, cell phone radiation, microwave ovens, computer wireless devices, microwave data transmissions, covert surveillance cameras and bugs, radiating computers and electronic games, and background radiation levels - ambient TV and FM. 2"w x 5"h, 5 oz..... **$89.99**

DAIWA industry co. ltd.



CROSS NEEDLE SWR/POWER METERS

CN-101 Covers 1.8-150MHz, rated at 1500W from 1.8-60MHz and up to 1000W at 144MHz. Shows Forward and Reverse power and VSWR simultaneously. Three power ranges: 15/150/1500W (RMS or PEP); ±10% of full scale accuracy. SWR detection sensitivity: 4W minimum. 50Ω impedance, SO-239 connectors. 6"w x 3"h x 3.875"d, 1.5 lbs ... **$99.99**

CN-103M Same as CN-101, but covers 140-525MHz and rated at 200W. Two power ranges: 20/200W (RMS or PEP) **$99.99**

PROFESSIONAL SERIES

The CN-801 series of cross needle meters features the most accurate meter and largest meter face in the Daiwa line. The large, easy-to-read meter has .5W increments and is lighted. This is truly a professional quality meter. • 5W SWR detection sensitivity (min.) • 50Ω impedence • 6"l x 4"h x 4.5"w • 2.2lbs

CN-801H 1.8-200MHz, 20/200/2kW..... **$149.99**

CN-801V 140-525MHz, 20/200W..... **$154.99**

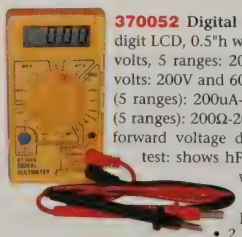
CN-801S 900-2500MHz, 2/20W, Type-N connectors ..... **Special Order $239.99**

VANCO™

LOW COST METERS

SWR-1 Field Strength or SWR Meter *(left)* Range: 3.5-150MHz, Impedance: 52Ω, SWR: 1:1–3:1, Accuracy: 5%, Meter sensitivity: 300uA. 5" RF pick-up antenna. 6"h x 2"w x 2.875"d, 14 oz. .. **$19.99**

SWR-3 SWR Meter *(right)* Range: 1.7-30MHz • Impedance: 50–52Ω • SWR: 1:1-3:1 • Accuracy: 5% • Sensitivity: 300uA • 2.5"x3.5"x3", 6oz..... **$14.99**



370052 Digital Multi-Meter 3.5 digit LCD, 0.5"h with polarity • DC volts, 5 ranges: 200mV-600V • AC volts: 200V and 600V • DC current (5 ranges): 200uA-10A • Resistance (5 ranges): 200Ω-20kΩ • Diode test: forward voltage drop • Transistor test: shows hFE value • Comes with 100-hour, 9V battery and plug-in test leads • 2.76"w x 4.96"h x 0.94"d, 6oz **$19.99**

Bel MERIT

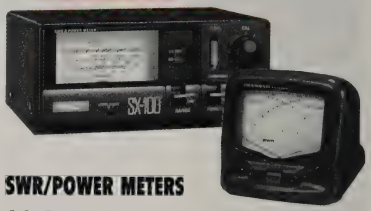
DX-405 Multi-function Multimeter 10 functions/39 ranges • 3.5 digit, manual ranging • Frequency meter, to 20MHz • 0.25% DCV basic accuracy • Measure voltage, current, resistance & diode • Continuous beeper • Data hold • Auto power off • Input warning • Tilt stand with holder • Holster • 4"w x 7.5"h x 1.5"d, 1.5 lb..... **$69.99**

DM-80 Pocket Digital Multimeter 3200 count • 32 segment bargraph • Auto/manual ranging • Auto off • Data hold • Range • Voltage, AC/DC 450V • Resistance, 30MΩ • Diode test • Continuity beeper • Over range indication • Low battery mark • Auto polarity • Carrying case • 2"w x 4.1"h x 0.4"d, 3.2 oz..... **$29.99**

VELLEMAN

DVM-810 Digital Multimeter Compact design makes this meter a perfect fit for any toolbox or even shirt pocket! It features multiple functions and an easy-to-read LCD display. • 3.5 digits • 19 ranges • Measures voltage, current, resistance, transistor and diode • Battery included..... **$9.99**

DIAMOND ANTENNA



SWR/POWER METERS

(left) Five models measure power and SWR with 5–10% of F.S. accuracy. Illuminated meter, sensor switch, LED indicator. Power ratings for intermittent operation. For continuous, ratings vary with frequency. SO-239 connectors on all except SX-1000 (type-N). 6"w x 2.5"h x 4"d, 2 lbs.

SX-100 1.6-60MHz, 30/300/3kW PEP... **$134.99**

SX-200 1.8-200MHz, 5/20/200W PEP **$94.99**

SX-400 140-525MHz, 5/20/200W PEP.. **$114.99**

SX-600 Dual band, 1.8-160MHz and 140-525 MHz, 5/20/200W PEP ranges..... **$169.99**

SX-1000 Dual band, 1.8-160MHz and 430-1300MHz, 5/20/200W PEP ranges..... **$214.99**

CROSS-NEEDLE SWR/POWER METERS

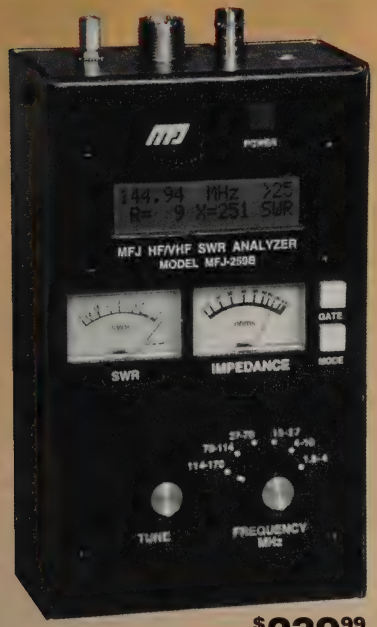
(right) Indicate forward/reflected power and SWR simultaneously. 50Ω impedance, SO-239 connectors, 10% F.S. accuracy, 3.3"w x 3.4"h x 3.7"d, 9 oz.

SX-20C 3.5-30/50-54 and 130-150MHz ranges; 30/300W. Needs 5W minimum for VSWR. **$89.99**

SX-40C 144-470MHz (220MHz with correction factor); 15/150W (3W minimum power)... **$79.99**

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

1.8-170 MHz



259B $239.99

269 SWR Analyzer

E-X-P-A-N-D-E-D Frequency Coverage & Added Features

1.8–170 MHz plus 415-470 MHz

Looks nearly identical to, and has all the features of the 259B PLUS...

- Covers 1.8 to 170 MHz plus 415 to 470 MHz
- Built-in CoaxCalculator™ – calculates coax length in feet given coax length in electrical degrees and vice versa, and any velocity factor (great for building matching sections and phasing lines for multiple antennas).
- New 12-bit A/D converter gives much better accuracy and resolution than common 8-bit A/D converters.

New 1.8 to 170 MHz Range features:

- Read Complex Impedance as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees). Also reads parallel equivalent resistance and reactance (Rp+jXp).
- Measure SWR and loss of coax with any characteristic impedance from 10 to over 600Ω, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450Ω.

415 to 470 MHz Range features:

- Read SWR, return loss, reflection coefficient simultaneously, and cable loss in dB and match efficiency.
- Has LCD logarithmic SWR bargraph and SWR meter for quick tuning.

269 $319.99

www.mfjenterprises.com

MFJ SWR Analyzers

... for Serious Antenna Performance!

You've spent a lot of time and money on your antenna system, so why not make sure it's giving you top performance? An MFJ SWR Analyzer will do that – plus, it will make you very popular because all of your Ham buddies are going to want to borrow it!

The MFJ 259B and 269 are complete Ham radio test stations, including – Frequency Counter, RF signal generator, SWR Analyzer, RF Resistance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter & more!

The 259B and 269 can take the frustration out of tuning your antennas for maximum performance. Gone are the days of using a conventional, sometimes questionable, SWR meter. You will no longer have to drag your rig (RF source) out into the yard. No more running in and out of the house or up and down the tower to make those seemingly endless readings and adjustments.

The 259B and 269 are self-contained and fully portable units, with built-in battery power and RF source so you can take it right to the antenna. Take one reading to get a complete picture of your antenna, and make tuning adjustments on the spot.

Operation is simple, just connect the feed line, set the bandswitch and tune the dial – just like a transceiver. All information is clearly displayed instantly on the large, easy-to-read, two-line LCD screen and side-by-side meters.

When tuning transmission lines or making up phasing harnesses for stacking antennas, you can quickly determine exact 1/4 or 1/2 wavelengths. You can also determine the velocity factor, coax cable loss, length of coax and distance to a short or open in coaxial cable.

Read SWR, return loss and reflection coefficient at any frequency, simultaneously, or inductance and capacitance at RF frequencies at a glance.

The 259B and 269 operate on 110V with the 1312D adapter ($14.99) or on 10 "AA" internal batteries, not included. For rechargebles, there is a built-in charger, MFJ's 1312D required.

All metal cabinet, 6-3/4"h x 4"w x 2"d.

Overall, here's what you can do...

- Read antenna SWR & Complex Impedance from 1.8-170MHz with the 259B and additionally 415-470MHz with the 269. Complex Impedance can also be read as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).
- Find true resonant frequency of antenna.
- Trim dipoles and verticals to resonance.
- Adjust your Yagi, quad, loop and others. Change antenna spacing and height – watch SWR, resistance and reactance change instantly.
- Perfectly tune critical HF mobile antennas in seconds for top performance – without subjecting your transceiver to high SWR.
- Measure your antenna's 2:1 SWR bandwidth on one band, or analyze multiband performance over the entire spectrum.
- Check SWR outside the ham bands without violating FCC rules.
- Adjust your antenna tuner for a perfect match without creating QRM.
- Take the guesswork out of building and adjusting phasing lines, matching networks and baluns.
- Accurately measure distance to a short or open in a failed coaxial transmission line. Measure the length of a roll of coax and also determine loss, velocity factor and impedance.
- Measure frequency with built-in counter.
- Frequency counter function.
- Troubleshoot and measure resonant frequency and approximate Q of traps, stubs, transmission lines, RF chokes, tuned circuits and baluns.

SWR Analyzer Accessories

29C Carrying Case – Tote your 259B anywhere with this custom carrying case. Wear it around your waist, over your shoulder, or clip it onto the tower while you work. Has back pocket for carrying dip coils and coax adapters. Special foam filled fabric cushions blows and protects unit from wear and tear. **$24.99**

39C Carrying Case – Fits the 269..... **$24.99**

66 Dip Meter Adapter – For grid dip operation. Set of two plug-in coils covers 1.8-170MHz range **$19.99**

98 Accessory Pack – Includes 39C case, 66 dip adapter and 1312D AC adapter..... **$54.99**

99 Accessory Pack – Includes 29C case, 66 dip coils and 1312D AC adapter **$54.99**

99B Accessory Pack – Includes 10 "AA" NiMH batteries, 29C case, 66 dip coils and 1312D AC adapter..... **$77.99**

99C Accessory Pack – Includes 10 "AA" NiMH batteries and 1312D AC adapter..... **$34.99**

731 Tunable Measurement Filter – Use with 259B or 269 for accurate measurements in the 1.8-30 MHz range while in the presence of strong RF fields from nearby broadcast stations or other RF emitters **$89.99**

92AA01
1300mAh AA Ni-MH Battery...ea. **$2.99**

92AA10
10 Pack.... **$24.99**

29C / 39C

66

731

MFJ ENTERPRISES, INC.

SWR/POWER METERS

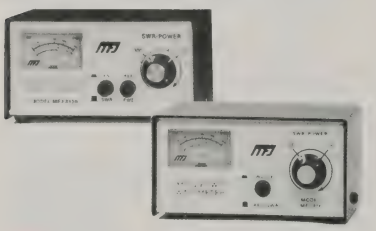
864 (bottom) Covers 1.8-60MHz, 144MHz and 440MHz bands. Dual sensors – connect an HF and VHF/UHF rig at the same time. Monitor SWR and power of either. Lighted Cross-Needle meter indicates 30/300W forward and 6/60W reflected power simultaneously. Uses 12V DC for meter light. 7.25"w x 2.5"h x 2.25"d **$84.99**

862 (middle) Similar to 864, but for 144MHz, 220 MHz and 440MHz. Ranges: 30/300W forward and 6/60W reflected. 5.75"w x 2.5"h x 2.25"d.. **$54.99**

860 *(top)* Similar to the 864, but covers HF 1.8 to 60MHz. Ranges: 30/300W forward and 6/60W reflected. 4.5"w x 2.25"h x 3"d **$44.99**

815B Features large 3 in. Cross-Needle meter for accurate SWR and peak or average power readings from 1.8 to 60MHz. Ranges: 200/2000W forward and 50/500W reflected. Push button selection. 12V DC meter light. 7.25"w x 2.5"h x 2.25"d ... **$79.99**

817 Looks and features similar to 815B but covers 144/440MHz bands. Ranges: 200/20W forward and 50/5W reflected. 7.25"w x 2.5"h x 2.25"d.. **$89.99**



812B (top/left) Indicates forward and reflected power on 2M/220MHz and SWR from 144–220 MHz, plus field-strength from 1–220MHz. Power ranges: 30/300W. 4.5"w x 2.25"h x 3"d..... **$34.99**

816 Toroidal Meter (bottom/right) Indicates forward and reflected power from 1.8–30MHz. Power ranges: 30/300W. 4.5"w x 2.25"h x 3"d..... **$34.99**

844 VHF/UHF SWR/Power Meter Covers 144 and 440MHz, rated up to 200W. Easy to read multi-colored meter shows SWR/POWER in three ranges: 15, 60, and 200W. Insertion loss is 0.3 dB or less. Measures only 3.75"w x 3"h x 1.25"d – great to take along for portable, HT or mobile rigs **$69.99**

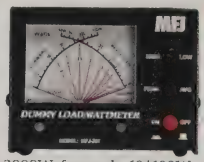
GrandMaster™ 3.25" x 1.25" meter, forward/reflected. 3 ranges. 13.8V/110V. 7.5"w x 3.125"h x 4.25"d.

870 (HF range) Covers 1.6 to 60MHz. Power ranges: 30/300/3000W **$124.99**

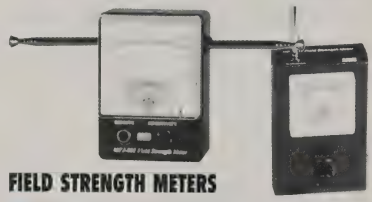
872 (HF/VHF range) Covers 1.8 to 200MHz. Power ranges: 5/20/200W **$94.99**

873 (VHF/UHF range) Covers 125 to 525MHz. Power ranges: 5/20/200W **$104.99**

874 (HF/VHF/UHF range) Covers 1.8 to 525MHz. Power ranges: 5/20/200W **$159.99**



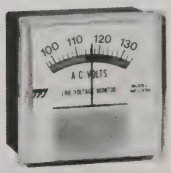
267 Precision SWR/Wattmeter with Dry Dummy Load 3", lit, cross-needle meter shows true-peak, average forward/reflected power and SWR. • 1.8–54MHz • 300/3000W forward, 60/600W reflected – SWR 1:1 to 8:1 • Load-to-antenna switchable. 50Ω dummy load rated at 100W (10 min.) or 1.5kW (10 sec.). • Usable up to 60MHz • SWR 1.3:1 @ 30MHz. 12VDC lamp or 120VAC with 1312D or 9V battery. Aluminum, perforated • 4"w x 3.125"h x 10"d..... **$139.99**



FIELD STRENGTH METERS

801 Super Compact Field Strength Meter *(right)* You can read relative field strength from your antenna, measure antenna performance and discover how strong your antenna field is. Its compact size fits in the palm of your hand, only 2.375"w x 3.625"h x 1"d. Telescopic whip included... **$19.99**

802 Bipolar Field Strength Meter *(left)* Dual whips are included, 2.375"w x 4"h x 1.5"d..... **$39.99**



MISCELLANEOUS

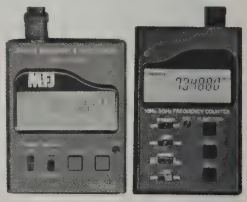
850 Line Voltage Monitor *(left)* Plug into any 110V AC outlet and monitor the line voltage on an expanded/colored 95 to 135V AC scale. Measures 2.25"w x 2.25"h x 1.5"d **$19.99**

204B Antenna Bridge *(right)* Quickly optimize 1.8-30MHz antennas for peak performance. Portable. Determine if an antenna is too long or short, measure resonate frequency and resistance to 500Ω. Built-in resistance bridge, null meter and oscillator driver. Requires 9V. 4"h x 2"w x 2"d..... **$79.99**

224 2M FM SignalAnalyzer™ Measure signal strength over 60dB range, antenna gain, beamwidth, front-to-back ratio, sidelobes, feedline loss. Check and set FM deviation. Plot field strength patterns, position antenna, measure preamp gain, tune transmitters and filters. Scope to analyze modulation wave forms, measure audio distortion, noise and peak deviation. Covers 143.5-148.5MHz. Headphone jack, battery (9V) check function. 4" x 2.5" x 6.75" **$149.99**

852 Power Line Noise Meter Sensitive (0.3 uV) superhet AM receiver with wide range noise level meter and AGC (over 70dB). Tuned to the 135MHz region. Telescopic, direction-finding dipole antenna is balun isolated and optimized to give a clearly defined null for pin-pointing sources. Plug in headphones and hear the trackable noise or plug in a tape recorder to document offending noise for playback. 9V battery. 2.8"w x 4"h x 1.5"d. **$89.99**

805 Pocket-Sized RFI Detector Track down and eliminate RFI caused by radiating cables and wires. Simply clamp the top mounted current transformer over suspected cable or wire (up to 1/4 inch diameter) to detect RFI causing common-mode currents. Useable from VLF to VHF. Uses 9V battery. 2.25"h x 4.75"h x 1"d **$79.99**



886 Pocket Frequency Counter *(left)* Covers 1 MHz – 3 GHz • 300MHz direct count with 0.1 Hz resolution • 10-digit LCD • Impedance: 50Ω (VSWR @ <2:1) • Sensitivity: 0.8mV @ 100MHz, 7mV @ 300MHz, 6mV @ 1GHz, 100mV @ 2.3 GHz • 15 dBm input • Synchronous detector • RF signal strength bargraph • 4 selectable gates • 6-hour, rechargeable NiCads • AC adapter • Telescoping antenna • 2.75"w x 3.25"d x 1.25"d **$109.99**

888 Deluxe Frequency Counter *(right)* Covers 10 Hz-3GHz • Displays frequency of local signals on 10-digit LCD • RF strength bargraph • Detects 150 MHz signals up to 150' • 300MHz direct count with 0.1Hz resolution • 4 selectable gates • Input: 50Ω (1-3MHz), 1Ω (10Hz-50MHz) • 6-hour NiCad pack • AC wall charger • BNC connector • Telescoping whip • 2.75" x 4.25"h x 1.25"d, 9 oz **$174.99**

854 RF Current Meter A top-mounted sense coil snaps over wires, cables, etc. up to 1/2" dia. • Measures actual RF currents in antenna elements, ground wires, radials and outside of coax feedlines • Six ranges, 30mA to 3A • Accurate from 1-30MHz • Range with variable sensitivity control • Auto-off press-to-test power circuit • All-aluminum case and G-10 PC board • 2.5"w x 5.5"h x 1.5"d, 11 oz **$89.99**

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Browse Our Store On-Line at www.aesham.com

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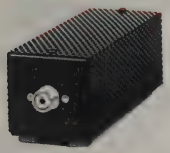


DUMMY LOADS

250 Versaload *(right)* 50Ω oil-filled dummy load providing low VSWR to 400 MHz. Rated at 1 KW CW or 2KW PEP for 10 min., with 50% power rating for 20 minutes and 200W CW (400W PEP) continuous. 7.25"h x 6.625" diameter With oil **$59.99**

250X Same as above, but requires oil..... **$39.99**

Dry Loads *(left)* Air cooled, non-inductive 50Ω resistor mounted in a metal housing. Full rated load for 30 seconds with derating curve to 5 minutes.

260C (HF/VHF) Rated at 300W. 1:1 SWR to 30MHz, .5:1 to 650MHz. 2.5" x 2.5" x 7"... **$34.99**

260CN With type "N" connectors..... **$39.99**

264 (UHF) Performs from 1.3 to 650MHz, usable to 750MHz. Rated at 1.5KW for 10-seconds and 100W for 10-minutes. 3"w x 3"h x 9"d..... **$69.99**

264N With type "N" connectors..... **$74.99**

MIRAGE

MP-3 Measures RMS, peak forward and reverse power and SWR, directly without charts or calculations • Negligible insertion loss. • 420-450MHz • 5/50/150W PEP • Remotable coupler, SO-239 connectors • Requires 9V or AC adapter • 5.75"x 4.5"w x 5.75"d, 3.5 lbs..... Closeout **$199.99**

Secure
www.aesham.com

YAESU

YS-60 Monitors average (CW) and peak (SSB) transmitter power and VSWR. Covers 1.8 to 60MHz, up to 2KW. Ranges: 0/200 and 2000W PEP. 50Ω imped., SO-239 connectors. Requires 12V DC for lamps and internal circuits. 4.75"w x 2.75"h x 3.5"d, 1.5 lbs..... **$129.99**

YS-500 Similar to YS-60, but covers 140–525MHz and has 4/20 and 200W PEP ranges..... **$109.99**

Night Owl Optics® NIGHT VISION

NOCC-3 Cyclops Compact™ *(top)* At 16 oz, the NO-CC3 night vision monocular boasts a powerful integrated infrared illuminator in one of the lightest bodies available. With easy to use power and IR controls, it's equipped with a 42mm objective operating at a 1:1.2 aperature with 3.1x magnification for quality nocturnal viewing. • 15,000 image tube gain • 628' FOV @ 1000 yards • 575' range of view • 8' to infinity focusing range • 2 AAs • 7.2" x 2.4" x 3.2" • 16 oz.. C/O **$139.99**

NODS-5 Night Owl Discovery Pro™ *(bottom)* Full-size night vision monocular with highest-grade 48mm camera quality objective lens providing unsurpassed resolution. It features an integrated infrared illuminator encased in an ergonomic body. Equipped with soft-touch controls, power and IR indicators and tripod. • 650' range of view • 5X magnification • 80mm focal length • 524' FOV @ 1000 yards • 10' to infinity focus range • 2 AAs • 7.6" x 3.4" x 2.9" • 1.5 lbs..... **$249.99**

NONW24-BPHT

NightWave 2.4 Night Vision Optics Compact, easy, light, ergonomic design. Features a 2.4x image magnification that gives you a closer look at distance objects in dark environments. Perfect for short range night time viewing. A built-in infrared illuminator aids viewing in dark rooms. Soft touch, on/off and I/R buttons. Operates with two AAA batteries. 5.5"l x 1.9"w x 3"h, 9.2 oz..... **$159.99**

NOXG-2 Explorer G2™ Cutting edge, with a technologically advanced night vision intensifier tube. Gives superior brightness and performance in low light conditions, and up to 2,300' long range of view. Compact, 100% waterproof – floats! Equipped standard with a powerful integrated infrared illuminator. • 3.0X magnification • 612' FOV @ 1000 yards • 8' to infinity focusing range • Uses 3V lithium battery • 6.8" x 2.3" x 3.3" • 1.3 lbs.. **$999.99**

ACCESSORIES

NOCA-42 Camera Adapter™ *(left)* Allows photography with 35mm SLR cameras. Replaces rear ocular lens. Requires opt. T-mount adapter..... **$39.99**

NOLD-20 Lens Doubler™ Increases magnification on the NOCC-3 enabling close-up viewing in the dark. Fits in front of objective lens .... C/O **$29.99**

TELESCOPES

0705-04-01 ETX-70AT 70mm Achromatic Refractor *(right)* Portable for birdwatchers or naturalists. Observe major planets easily. • 2 eyepieces (MA 9mm/39x, MA 25mm/14x) • Multi-layer coated, tube assembly (D=70mm, F=350mm f/5) • Internal flip-mirror for either straight or 90° observing • Fork mount – electric slow motion controls, setting circles and axis locks • Electronic control panel • 9-speed, dual-axis motor drive with Autostar™ control • Side-real-rate tracking • Requires 6 AAs • Includes tripod • 7 lbs..... **$319.99**

3514-03-20 ETX-90AT 90mm Maksutov-Cassegrain *(left)* Ultraportable • 8x25mm right-angle viewfinder • Series 4000 Super Plossl 26mm eyepiece (1.25") • Super multi-coated optical tube assembly (D=90mm, F=1250mm f/13.8) • Internal flip-mirror for straight or 90° observing • Fork mount with electric slow-motion controls, setting circles and locks on both axes • Electronic control panel • 4-speed, dual-axis motor drive with Autostar control • 8 AAs needed • Tripod • 19 lbs **$599.99**

0515-03-20 ETX-125AT 138mm Maksutov-Cassegrain Same as above with D=127, F=1900mm f/15 optical and 8x25mm right angle viewer. Includes AutoStar controller and tripod. **$999.99**

20201 NGC-60 Refractor Includes built-in AutoStar computer control system and manual slow-motion controls. • 60mm (2.4") diameter, f/11.7 ratio, 700mm focal length • Self-guided "go-to" control system, 1400-object database • Altazimuth mount with slow-motion control • MA25mm and MA9mm 1.25" eyepieces • 5 x 24mm viewfinder • Hybrid diagonal • StarNavigator software • Adjustable sliding aluminum tripod with accessory shelf • Requires 2 AA batteries (not included). **$199.99**

20117 DS-2114-ATS Reflector The Meade AutoStar control has the lead in automated scope technology. Includes 9-speed controller and "go-to" capability to over 1400 objects. With internalized motors, cords, gears and battery compartment. • 114mm (4.5") diameter • f/8.8 ratio • 1000mm focal length • 2" focuser • Streamlined, single-tine fork altazimuth mount for smoother motions in altitude/azimuth • MA25mm and MA9mm 1.25" eyepieces • 1.25" and 2" holders • 6 x 30mm view finder, rubber eyecup • StarNavigator software • Quick release, adjustable aluminum tripod..... **$399.99**

CELESTRON®

The Dobsonian reflector telescope is a relatively recent design that places all the performance of the Newtonian reflector design on a simple altazimuth mount. Celestron's Dobsonian design, the Star Hopper®, is great for beginners because it's very easy to use and quite economical, yet has advanced features even an experienced observer will appreciate. • Glossy aluminum tube • BK-7 optical quality glass • Azimuth surface provides dozens of support points for smooth swivel motion • Variable tension clutch system for proper balance and smooth azimuth control • 9x50 Finder scope and quick release bracket • 2" focuser with 1.25" adapter • Variable tension altitude clutch with handle • Azimuth roller track bearing

10800 StarHopper® 8 8-inch (200mm) diameter Dobsonian • 1200mm focal length (f/6) • 25mm Plossl eyepiece, 1-1/4" (48x) **$399.99**

10110 StarHopper® 10 10-inch (250mm) diameter Dobsonian • 1250mm focal length (f/5) • 32mm E-Lux eyepiece, 2" (39x) • Cooling fan ... **$549.99**

10112 StarHopper® 12 12-inch (300mm) diameter Dobsonian • 1500mm focal length • 32mm E-Lux eyepiece, 2" (47x) • Cooling fan..... **$999.99**

Take the best of the NexStar 5 and 8 to the next level with the 5i and 8i. Equipped with the electronic hand control, they allow manual slew across the sky in seconds or tracking of a star as the Earth rotates. The control also offers movement of the scopes at six different rates and has a "double button" feature to increase slew speed without changing rates. Put the power of the newest software and expanded 40,000 object database to work with the optional computerized hand control. Capable of becoming fully automatic GPS scopes with optional GPS accessory and computerized hand control.

11033 NexStar 5i Standard features include • 5" (127mm) diameter, 1250mm focal length, f/10 focal ratio • 60°/sec. slew • Fully enclosed HD high speed motors • Battery compartment for 8 AA's • Starbright™ coated, Schmidt-Cassegrain optics • Multi-coated, 1.25"/25mm Plössl eyepiece (50x) • StarPointer finderscope • 1.25" star diagonal • Auto-Guider port • Auxiliary port for accessories • Heavy-duty base with rubber feet..... Closeout **$899.99**

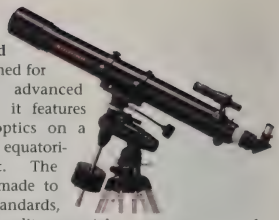
11022 NexStar 8i Same features as 5i with • 2032 mm focal length, f/10, 8" (203mm) dia. • Multi-coated, 1.25" Plössl eyepiece (81x)..... **$1379.99**

11015 Celestar 8 Engineered for optical performance in an affordable, full-featured Schmidt-Cassegrain scope with large enough aperture to do serious deep-sky observing. Features: 8" (203mm) aperture • 2032mm focal length • f/10 focal ratio • 6x30 finderscope • Standard 1.25" accessories including 25mm SMA eyepiece (81x), Star diagonal and visual back • Fork mount and wedgpod • 41 lbs C/O **$999.99**

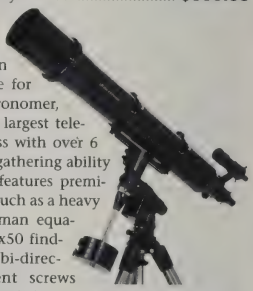
11052 NexStar 8 GPS Ultimate in "go-to" technology and astro-imaging, this 8" Schmidt-Cassegrain boasts an integrated GPS and electronic compass, combined with the NexStar™ system. As it turns on, GPS/compass system automatically points to the first alignment star. Auto guider port • 2 auxiliary ports • PC port/RS232 compatible • GPS align mode • 2000mm focal length (f/10) • 5-step multi-layer StarBright® coatings • 40mm NexStar Plössl (50x) • 9x50 finderscope • Fastar compatible • External 12V DC • AC adapter..... **$2169.99**

11053 NexStar 11 GPS A large aperture telescope with carbon fiber tube, integrated GPS and electronic compass. When turned on, the GPS/compass system automatically pinpoints exact location and points to the first alignment star. The NexStar offers a 40,000+ object database and storage for numerous, user-defined objects. It also features database filter limits for creating custom lists. Built with dual aluminum fork arms with carrying handles and a receptacle for computer go-to control. 279mm (11") dia. Schmidt-Cassegrain • 2800mm focal length • f/10 ratio • Premium 40mm (70x) 1.25" Plössl eyepiece • 9x50 finderscope • 9 slew speeds • Star diagonal • Visual back • RS232 and multiple data ports • AC adapter • Adjustable, 26-pound tripod • 65 lbs..... **$3224.99**

22082 NexStar 80GT With an 80mm aperture and 3.25° field of view, the 80GT is capable of capturing the largest deep-sky objects. 80% brighter views than 60mm. This short-tube, 400mm focal length, refractor telescope has 16x (25mm) and 40x (10mm) magnification, 1.25" SMA eyepieces. • 80 mm (3.1") dia. • f/5 ratio • "Go-to" computer hand control • StarPointer™ finderscope • 1.25" star diagonal • *The Sky* Level I CD • Adjustable aluminum tripod, accessory tray • 11 lbs..... **$349.99**



21016 Advanced C4-R Designed for the more advanced astronomer, it features exquisite optics on a heavy-duty equatorial mount. The optics are made to exacting standards, with high quality materials to ensure top performance. Offers a 63% increase in image brightness over 80mm models, with the larger aperture delivering incredible images of the moon, Saturn and its ring structure, Jupiter and its belts, and hundreds of deep-sky objects; including galaxies, nebulae and star clusters • 102mm refractor • 1000mm focal length (f/10) • Mount with setting circles and slow motion cable • 6x30 finderscope • 20mm (50x) 1.25" plossl eyepiece • Adjustable aluminum tripod and accessory tray **$399.99**



21019 C6-R Achromatic Refractor An excellent choice for the serious astronomer, the C6-R is the largest telescope in its class with over 6 times the light gathering ability of a 60mm. It features premium accessories such as a heavy duty CG-5 German equatorial mount, 9x50 finderscope with bi-directional alignment screws and a spring loaded pivot support, 20mm (60x) Plössl 1.25" eyepiece, 2" focuser and 2x Barlow with photo adapter. The new German Equatorial mount has precision worm gears on both axes for extremely smooth stability. It also has a convenient latitude scale for easier alignment and an optional polar finder scope for precision alignments. A NEW heavy-duty tripod with more substantial legs offers excellent damping characteristics. • 150mm (6.0") refractor • 1200mm f/8 focal length • Right ascension and declination setting circles • Slow motion control knobs on both axes • 1.25" star diagonal • The Sky I CD • Accessory Tray • 57 lbs **$849.99**

22062 NexStar 60GT Views of the lunar landscape, phases of Venus, Mars resolved as a disc, Jupiter and its moons, Saturn with its rings plainly visible, some deep sky objects, plus terrestrial views. Comes with a fully-computerized hand control with database of over 4,000 objects. Includes three 1.25" eyepieces (35x, 70x and 175x). With a pre-assembled, adjustable tripod, the 60GT can be up and ready in a matter of minutes. A StarPointer finderscope with red LED makes centering easy. • 60mm (2.4") dia. refractor • 700 mm focal length • f/12 ratio • 1.25" star diagonal • *The Sky* Level I CD-ROM • 9.5 lbs..... **$249.99**

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21052 FirstScope 60AZ *(top)* All glass components, coated optics and smooth functioning mounts, with the added benefit of slow motion controls on the mount for easy adjustments. • 60 mm (2.4") refractor • 700mm focal length, f/12 • Slow motion control rod for smooth vertical adjustments • Sturdy adjustable aluminum tripod with tray • 1.25" 20mm (35x), 10mm (70x) eyepieces • 1.5x erect image eyepiece • 90° star diagonal (1.25") • StarPointer™ finderscope • Altazimuth mount • The Sky 1 CD • 7 lbs **$99.99**

21086 FirstScope 80EQ *(bottom)* A good choice for the more serious beginning astronomer. The setting circles and slow motion controls allow for greater control in both locating and tracking objects, making this equatorial telescope one you can grow with as your observing interests expand. All glass components, German equatorial mount. • 80mm (3.1") refractor • 900mm focal length, f/11 • Equatorial mount with setting circles and slow motion adjustment cables • Sturdy adjustable aluminum tripod with accessory tray • 1.25" 20mm (45x), 10mm (90 x) eyepieces • 90° star diagonal (1.25") • StarPointer™ finderscope • The Sky I CD • 18 lbs .. **$299.99**

31132 NexStar 130GT Computerized hand control provides the ability to auto slew (9 speeds) to any of its 4,000+ database of objects, including over 600 galaxies. View details of the lunar surface, rings of Saturn, polar ice caps on Mars or a number of the Messier objects. Explore fainter objects using the light-gathering, 5" primary mirror, which gives fully color-corrected views. • 130mm (5") Newtonian reflector • 650mm focal length (f/5) • Motorized altazimuth mount • 1.25" 25mm (26x), 10mm (65x) eyepieces • Computerized hand control • StarPointer™ finderscope • NSOL control software for PC • Adjustable aluminum tripod with tray • The Sky I CD • 18 lbs **$399.99**

31034 Tabletop 76 Small, but powerful, this ultra portable telescope is ideal for traveling and quick set-up. The handy but sturdy table top mount provides steady viewing. • 76mm (3") aperture • 600 mm focal length • f/8 focal ratio. Standard 0.96" accessories include: 4mm SR (150x), 20mm H (30x) and 2x Barlow eyepieces • 5x24 right-angle Finderscope • 5 lbs **$99.99**

31044 Firstscope 114 High quality, telescope featuring an optical system for bright, detailed views. The highly stable equatorial mount (CG-3) has setting circles and slow motion controls on both axes providing smooth, easy tracking. Built to provide years of performance, it comes with adjustable, aluminum tripod and accessory tray. • 114mm (4.5") diameter aperture • 900mm focal length • f/8 ratio • StarPointer™ finderscope • 20mm (45x) and 10mm (90x) Kellner eyepieces • 1.25" focuser • 35" optical tube • Enhanced aluminum optical coatings • 1.5" rack and pinion focusing • 45 lbs..... **$249.99**

31056 C6N Mounted on a rigid CG-4 equatorial mount. Counterweight, latitude scale, setting circles and slow motion controls on axes are standard. • 150 mm (6.0") aperture • 1000 mm focal length • f/7 focal ratio • 1.25" accessories include: 20mm Plössl eyepiece (50x) and focuser • 6x30 finderscope • CG-4 EQ mount • Adjustable metal tripod, accessory tray • 41 lbs **$399.99**

31142 NexStar 114GT Computer compatible Newtonian reflector with a compact design and exceptional light-gathering ability. • 114 mm (4.5") diameter • 1000mm focal length (f/9) • Starpointer™ finderscope • 25mm (40X) and 10mm (100X) SMA eyepieces • Motorized mount • Computerized hand controller with "go-to" database. Includes *GuideStar™* software to use with your personal computer, fully assembled adjustable aluminum tripod, battery pack and *The Sky Level 1* CD-ROM ... **$439.99**

LAB GRADE MICROSCOPES

4020 Dissecting Microscope This provides an introduction to the world of microscopy. It uses a 45° inclined, 360° rotatable monocular head which can move up and down on the metal pillar for small or large item viewing. The eyepiece is a 10x-18mm with a 4x-58mm objective, giving 40x power. The all-metal unit comes with a 60mm black-and-white viewing plate and smooth rack and pinion focuser **$79.99**

4030 Educational Microscope Feature-packed and a great educational tool. It has a fully coated optical system, with H10x and H12.5x eyepieces and 35mm 4x, 10x, 40x objectives giving powers of (40x, 100x, 400x) 10x and (50x, 125x and 500x) 12.5x. This unit uses positive click stops on the turret, a five aperture diaphragm, a plano-concave 50mm mirror, and a smooth rack and pinion focuser with a safety rack stop..... **$119.99**

4050 Biological Microscope Using fully coated optics, with a mechanical tube length of 160mm, its achromatic objective promises great observing sessions. The unit has a monocular 45° inclined, 360° rotatable head, positive click stop nosepiece with three objectives, 4x, 10x, 40x, a metal 110mm x 120mm stage and a five aperture diaphragm. It uses coarse and fine focus with electrical illumination with a tungsten 20w bulb and .65 single lens condenser. Powers are 40x, 100x and 400x using the 10x eyepiece **$199.99**

SPOTTING SCOPES

52200 *(top)* **60mm Pro Zoom Spotting Scope** This powerful spotting scope's large 60mm aperture makes it perfect for bird watching, photography, nature study, hunting or scenic observing. Carefully crafted, multicoated optics provide excellent contrast and clarity, and the standard lens hood reduces glare. Zoom and focus controls are exceptionally smooth, convenient and easy to use. The ability to zoom from 15 to 60 power with speed and precision means you'll be able to focus on and follow interesting subjects with ease. • 24' near focus at 15 power • 15mm eye relief at 15 power • 30° field of view at 15 power **$199.99**

52211 *(bottom)* **60mm Wildlife Zoom Spotting Scope** A great all-around optic designed to perform well in a range of viewing situations. Great for bird watching, observing nature and long distance spotting. The focus and zoom controls are easy to use and well placed for fast, convenient image acquisition. It offers long eye relief of 33mm at 15 power. With fully coated lenses, it's totally reliable and an excellent performer. • Power range that zooms from 15 to 45 power • Near focus: 42' at 15 power • Field of view: 2.25' at 15 power • Mini table tripod and carrying case included • 25 oz . Closeout **$169.99**

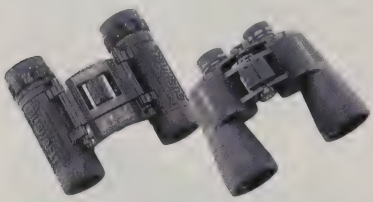
BUSHNELL

BINOCULARS

Powerview® Truly the "best of both worlds." Contemporary styling and design combined with legendary Bushnell quality and durability. The easy-to-hold and easy-to-use aspect of these binoculars also converge to make Bushnell Powerview binoculars an excellent value for the general and outdoor user. Powerview comes with soft rubber covering and the patented "Insta-Focus®" system. Each binocular comes with a neck strap and carrying case.

13-1226 *(left)* Compact binocular with folding roof prism. Designed in camo. Features include: 12x25 magnification • 240 ft. field of view at 1000 yds. • 2.1mm exit pupil • 9.7oz..... **$29.99**

13-0430 *(right)* **LiteVision™** • 4x30 magnification • 650 ft. field of view at 1000 yds. • 7.5mm exit pupil • 7.5oz **$13.99**



13-1250 *(right)* **InstaFocus®** • 12x50 magnification • Porro prism • 265' field of view (1000 yds.) • 4.2 mm exit pupil • Adapts to tripod • 27oz... **$59.99**

13-2514 *(left)* Compact, folding binocular • 8x21 magnification • Roof prism • 375 ft. field of view at 1000 yds. • 2.6mm exit pupil • 7oz..... **$21.99**

Falcon is feature packed and value priced. Perfect for sporting events, sightseeing, nature study, backpacking, concerts and theater. The line includes the Bushnell patented InstaFocus® focusing system, coated optics, carrying case and strap.

13-0721 *(right)* Compact binocular featuring 7x21 magnification • Porro prism • 340 ft. field of view • 3mm exit pupil • 4.7oz ..... Closeout **$19.99**

13-3410 *(left)* **InstaFocus®** • 7x35 maginifcation • Porro prism • 420' field of view (1000 yds.) • 5mm exit pupil • Adapts to tripod • 21oz..... **$29.99**

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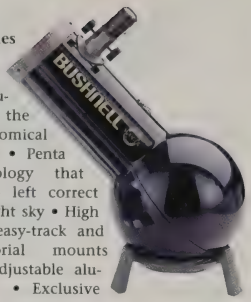
TELESCOPES



Voyager® Series Engineered to exacting standards with exclusive features: the first astronomical zoom telescope • Penta mirror technology that yields right to left correct views of the night sky • High quality metal easy-track and metal equatorial mounts • Innovative adjustable aluminum tripods • Exclusive rotary power turret eyepieces.

78-2010 Penta mirror technology that yields right to left correct views • High quality metal easy-track and metal equatorial mounts • Exclusive rotary turret eyepieces • 100 x 4.5" reflector • Focal length: 500mm • 5 and 27mm Plossl eyepieces • Magnification: 18 and 100 • 1.25" format eyepieces • Precision rack and pinion focuser • Convenient shoulder strap • Pre-assembled cradle mount • Camera and tripod adaptability..... **$199.99**

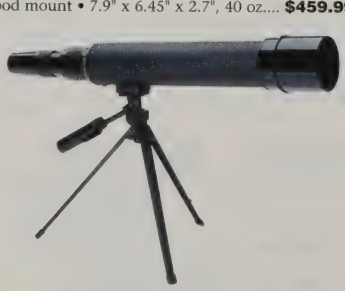
TELESCOPE ACCESSORIES

(See Price Guide to match accessories to correct telescope model)

78-0101 1.25", 9mm Kellner.... Closeout **$19.99**
78-0102 1.25", 25mm Kellner.. Closeout **$19.99**
78-0105 1.25" 2x Barlow lens .. Closeout **$29.99**

MISCELLANEOUS

26-3150 NightVision Binocular (Generation 1) Great for wild-life observation, maritime navigation, security or camping. Built-in infrared illuminator for enhanced images in very low light. Powered by a single CR123A battery. • Magnification x objective lens: 3.1 x 50mm • Range: 1.5 to 400 ft. • 79 ft. field of view @ 100 yds • Includes tripod mount • 7.9" x 6.45" x 2.7", 40 oz.... **$459.99**



78-2061 Spotting Scope Extra power and performance for extended range viewing • Variable zoom eyepiece for great range • Fully coated optics reduce glare and enhance picture clarity • Rugged construction • Compact tripod • Hand carrying case • 20-60x magnification • 60 objective • 70/23 ft. field of view @ 1000 yards (20x), 24/8 ft. (60x) • 3mm (20x) and 1mm (60x) exit pupil • 40 ft. close focus • 20.4", 25 oz **$79.99**

Bushnell makes it easy to accurately measure speed with the Speedster™ and the new Velocity™ speed guns. The Speedster™ uses digital technology and digital signal processing to provide accurate real-time measurements to ±1.0mph. It measures the speed of a baseball from 75 feet away and even has a stat-keeping mode. Additionally, the speed of larger objects like racecars can be measured from 1,300 feet. A more simplified, yet equally effective speed gun is the Velocity™ with its point-and-shoot operation. Like the Speedster™, it boasts ±1.0mph accuracy. The Velocity™ can track the speed of a ball from 100 feet. It's the ideal tool for tracking everything from racecars to pitching speeds. Both guns have a 6–110mph range for baseball, softball and tennis. They also range 6–200mph for auto racing.

10-1907 Speedster™ Speed Gun Compact with comfortable pistol grip • 4-row LCD graphics display • Two-way button pad • ±1.0mph accuracy • Displays current, last and average speeds • Tracks baseball statistics for up to 8 pitchers • Operates on 6 AA batteries • 3.5" x 7.2" x 4.3", 13 oz. **$199.99**

10-1911 Velocity™ Speed Gun Easy-to-use, point and shoot pistol grip • Large, clear LCD display • Displays fastest speed once trigger is released • ± 1 mph accuracy • Operates on (2) "C" batteries • 4.3" x 8.4" x 6", 13 oz..... **$99.99**

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SECURITY ITEMS

PE-319 Pedometer with Personal Security Stay at ease while exercising away at home. This pedometer features a 120dB panic alarm for personal security and emergency. Displays elapsed workout time, distance walked and a 12/24 hour clock on its backlit 2-line LCD display . **$19.99**

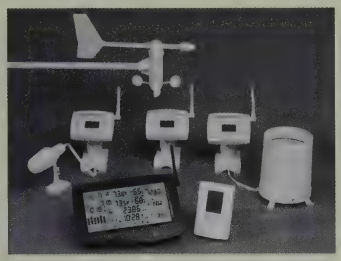
ALL HAZARDS WEATHER RADIOS

WR-102 Portable S.A.M.E. Weather Radio A handheld all-hazards weather radio that receives and displays alerts, watches and warnings that apply only to a local area using S.A.M.E. technology • Monitors 24-hour weather forecasts and alerts • Scans all NOAA channels • Monitors U.S. emergency alert system with auto activation • Dual LED power/alert indicator • Digital clock and alarm with snooze **$49.99**

WR-196T Desktop S.A.M.E. Weather Radio AM/FM radio with ten memory presets • Digital tuning, including seven NOAA weather channels • Dual LCD display for clock and dot-matrix text message • Automatic audible and visual alert activation plus blinking LED warning • Standby mode to mute speaker • Digital clock, calender, alarm, and 5–120 min. sleep timer • Operates from 3 AA's or AC adapter • 6.75"h x 5.25"w x 0.875"d, 0.75 lb.... **$69.99**

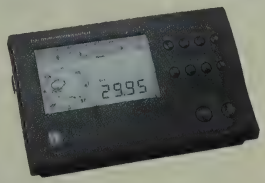
WEATHER STATIONS

RGR-122 Long Range Rain Gauge Self-emptying and provides cumulative and daily precipitation totals for up to nine days. Its wireless, long range capability allows the collector to be placed up to 300 ft. from the main unit. The collection data is broadcast at 433MHz to the indoor base unit and displayed on an attractive easy-view 3.5"h x 1.5"d x 2.5"w LCD console. Includes indoor temp. gauge. Requires 2 "AA" batteries in both collector and main units **$59.99**



WMR-968 Cable Free™ Weather Station Innovative wireless outdoor sensors with 300 ft. range operates on solar power for simple installation and sophisticated ease. Track and record over 20 separate weather conditions by a press of the touch-sensitive jumbo LCD display screen **$399.99**

WM-918 Complete Weather Monitoring Station Monitors over 20 weather and environmental conditions. 40-foot sensor range. Self-dumping electronic rain gauge, outdoor temp. and humidity sensor, anemometer (wind speed/direction), and all wiring. Desktop control panel displays clock, calendar, alarm, and weather. Also features weather forecasting displaying local 12/24-hour forecasts. Uses 8 AAAs, AC adapter included. 7"l x 4.25"w x 1.5"h, 14.8 oz.... **$229.99**



WMR-112A CableFree™ Weather Station Uses innovative, wireless, outdoor sensors for simple installation. Operates on 433MHz at a 300' range from remote sensors. • Measures outdoor temperature (-4°F to 140°F) and relative humidity (25%–95%) • Measures indoor temperature (0°F to 122°F), relative humidity (25%–95%) and barometric pressure (17.27 to 31.02 in.Hg) • Indoor touch-screen console, wall mount or desktop • AC adapter • Requires 12 "AAA" and 6 "AA" batteries (not included) • 7.75"h x 3.5"w x 1.4"d **$199.99**

OTHER WEATHER PRODUCTS

RM-116E Exactset™ Radio Controlled Clock *(left)* The most accurate of alarm clocks. Sets itself automatically by receiving time signals from the U.S. Atomic clock. Features blue HiGlo™ backlight LCD, snooze, day/month/seconds and automatic adjustment for Daylight Savings Time . Closeout **$29.99**

EMR-812A Cable Free™ Thermometer The latest in radio frequency technology! This Cable Free™ thermometer with jumbo display shows you the indoor temperature and the temperature from up to three remote locations. Includes one easy-to-install remote temperature sensor that can be placed up to 90 feet from the main unit – with no wires to install anywhere! • 433MHz operation • High/low memory and temperature alarms • Choose and change between Celsius and Fahrenheit • Includes one wireless sensor . **$29.99**

THR-138 Extra Sensor **$24.99**

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Emerson.

PDC-803 Electronic LCD Digital Compass Easy-to read LCD screen displays heading as a cardinal point (e.g. N, NW, SE) with numeric digits in degrees (e.g. 17°) plus a directional compass arrow • Backlight for night use • One touch calibration corrects for local magnetic interference • Mounts on dashboard with velcro • 3 AAA batteries included • 1.875"w x 3.625"h x 2.75"d, 4 oz **$29.99**

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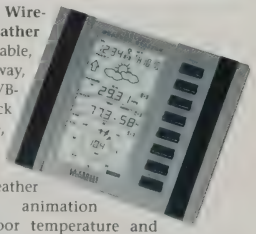
WEATHER STATIONS

WS-2010 Professional Wireless Weather Station Indoor temperature (32°F to 158°F), humidity, and barometric pressure (from remote) • Outdoor temperature and humidity (wireless, solar powered) • Min/maximum data for all readings with time and date recorded • Air pressure with 24-hour bar chart history • Forecast icon and pressure trend indicator • Wireless rain gauge (solar powered) tracks rainfall amount for last hour, last 24 hours, total • Wireless wind-gauge (solar powered) tracks speed and direction - up to 330' range • Includes wind-gauge, rainfall sensor, indoor temperature/humidity sensor, and outdoor temperature/humidity sensor • Receiver and sensors require alkalines (not included) • Free standing or wall mount • 8.5"w x 1.25"d x 6.5"h (receiver) **$389.99**

WS-2010-13 PC Interface for WS-2010 Wireless Weather Station Connects to serial port • Receives and stores all data • Included software calls in data and removes from interface, storing in a data file • Without computer connected, can act as a data logger, storing several days collected data • Selected data can be exported as an ASCII file for use in other WIN 95/98 programs (Excel, etc.) • Generate graphs, charts, and data lists • Operates on 2 AA batteries (not included)..... **$129.99**



WS-2310 Wireless/Wired Weather Center Direct cable, or up to 80' away, wireless • WWVB-controlled clock shows day, date, minute, second, alarm, and time zone • Weather forecast with animation • Indoor/outdoor temperature and humidity, wind chill, dew point, rainfall (24 hrs, 1 hr, and total) • Wind speed (m/s, knots, bft, km/h, and mph) and direction with trend • Barometric pressure • Alarms: time, storm warning, weather (air pressure, temperature, humidity, rainfall, wind speed, and wind direction) • Stores up to 175 sets of weather data in memory for weather analysis and graphical display on PC (software CD-ROM and cables included) • Uses 3 AA batteries (not included) or included AC adapter..... **$249.99**

Used & Demo
Equipment lists
Updated regularly on the web.
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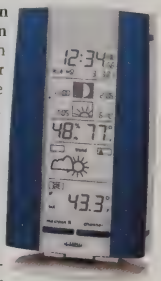
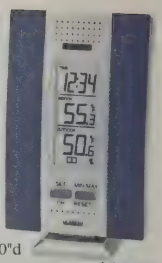
WS-8025AL Sun/Moon Wireless Weather Station Indoor temperature (°F or °C) and humidity (RH%) • Remote temperature (°F or °C) and humidity (RH%) • Can receive as many as three remotes (one TX4U included) • Calculates sun/moon rise/set based on entered city (choose from 250 North American cities) • Barometric air pressure with 30-hour history chart • Forecast icon, based on changing air pressure • Forecast is about 75% accurate for 12-20 hours • Current moon phase • Wall-mount or fold-out stand • Radio-controlled time and date • Temperature alarm for remote temperatures • Storm warning indicator • 12 or 24-hour time mode • 7.5"w x 0.8"d x 10"h..... **$159.99**



WS-9016U Sun/Moon Wireless Weather Station WWVB-controlled time with manual settings • Calendar display, date, time zone • Alarm function with adjustable snooze • Sun/moon data for 45 U.S. locations • Weather tendency and air pressure trend • Indoor temperature and humidity display • Min./maximum outdoor temperature record with time • Receiver and remote require alkaline batteries (not included) • 4"w x 1.4"d x 6.75"h..... **$79.99**

WS-7038UF Wireless Rain Gauge Receives rain data from included, remote, self-emptying, rainfall gauge located up to 80' away • Shows rainfall for past hour, 24 hours or last rain period until manually reset • Rainfall history – view last 7 days, weeks, or months – scroll period by period on graph • Rain alarm function • Wall mount or free-standing with removable stand • 12/24-hour time mode, manual time set • Receiver/remote use 2 AA alkalines each (not included) • 3.5"w x .75"d x 4.2"h (receiver) **$59.99**

WS-7075UF Wireless Forecast Station Indoor/remote temperature, indoor humidity • Forecast icon, based on changing air pressure, about 75% accurate for 12-20 hours • WWVB controlled 12/24-hour time, dual time alarms with snooze • Receiver and remote require alkaline batteries (not included) • Wall mount or free-standing with removable stand • 4.5"w x 1.0"d x 7.0"h • 80' range.. **$59.99**



WS-7013U Wireless Temperature Station Indoor/remote temperature with minimum and maximum memory (time recording for remote temperature) • 12 or 24-hour mode, manual set time • Wall mount or free-standing (removable) • Receiver and remote use 2 AA alkalines each (not included) • Up to 80 foot range • 2.75"w x 4.25"h x 1.0"d (receiver) **$24.99**

OTHER WEATHER PRODUCTS

WT-5431 Projection Alarm with Remote Temperature • 12 or 24-hour time, dual alarm with snooze – WWVB control, month/day, date • Time zones, GMT to 12 hours • Indoor and remote temperature • Projects from 3-10 feet onto wall or ceiling with adjustable rotation, intensity; auto focus • Backlit display when a button is pressed • Wall transformer (included) or 3 AA alkalines; remote requires 2 AAA's (not included) • 5.25"w x 3.5"h x 1.25"d..... **$49.99**

IR-101 Infra-Scan Infrared Thermometer Measure temperature in a fraction of a second without touching the object being measured. Useful for contact-free measurement of stationary and moving objects, finding cold spots in a home, checking food stuffs, heating and air conditioning, hot components (machinery, engines, etc.) • Single key operation • Back-lit LCD • Temperature range: -4°F to +572°F • Uses 4 LR-44 button cells (included) • 2.2"w x 0.9"d x 4"h **$49.99**

WS-8017U-OAK Atomic Clock, Wireless Indoor/Outdoor Thermometer (oak finish) Extra-large digital displays for readability. Extend the foldout stand for use on table or shelf. Fold in for wall mounting (wireless remote sensor wall mount only). Displayed data in initial mode includes time (hour/minutes), month, date, weekday, in/outdoor temperature. Three other modes display seconds digitally in place of weekday, in or outdoor temperature. Sets automatically to WWVB radio signal (manual also possible) and synchronizes to U.S. atomic clock nightly. • 12/24-hour time • Alarm setting, snooze • Calendar with weekday abbreviations (english, french, or spanish) • 13 time zones • Day-light saving time option • 32° to 122°F (0° to 50°C) indoor temp. • -21.8° to 140°F (-29.9° to +59.9°C) outdoor temp. • 10-second indoor (5-minute outdoor) checking interval • 82' maximum transmit range • Requires 4 AAs (not included), lasting about 1 year • 11.4"w x 7.5"h x 0.98"d (clock) • 1.57"w x 5.04"h x 0.9"d (sensor) **$39.99**

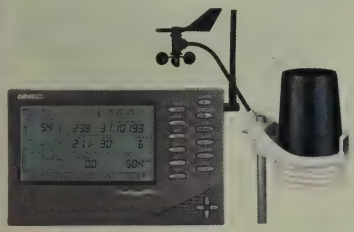
AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

DAVIS

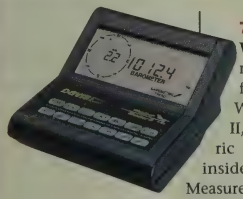
WEATHER STATIONS

Professional quality for home, business, or scientific use. Add WeatherLink for detailed, long-term analysis using a PC. Standard weather stations assemble quickly with plug-in cable connections. Cables are connected to the console through a junction box with 8' cable. Console includes AC adapter with battery backup (not included).

All stations include, time in 12/24-hour format, date, U.S. and metric measure, highs and lows, calibration of some functions for increased accuracy under difficult conditions, sequential scan and display of readings, alarms for selected functions, console with LCD and reversible base (desk, shelf, or wall), and anemometer with 40' cable.



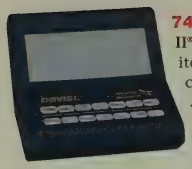
6150 Wireless Vantage Pro The latest in weather technology! Offers forecasting, on-screen graphing, and more. Monitors barometric pressure, temperature, humidity, rainfall, and wind speed and direction. Quick view icons show the forecast at a glance – sunny, partly sunny, cloudy, rain or snow, while a moving ticker-tape display gives more details. An innovative integrated and solar powered sensor suite combines rain collector, temperature and humidity sensors, and anemometer into one package – making setup easier than ever and improving performance and reliability. Typical wireless range is up to 150-200ft. For improved accuracy, the temperature and humidity sensors are housed inside a shield which protects solar radiation and other sources of radiated and reflected heat **$539.99**



7425 Weather Wizard III® Offers most monitoring features of the Weather Monitor II, except barometric pressure and inside humidity. Measure daily and accumulated rainfall with optional rain collector. Optional Weather-Link software will process and store data through an IBM®-compatible or Mac®. • Metric or U.S • 5.25" x 5.875" x 3"..... **$179.99**

7852 Rain Collector II For 7440, 7425 and 7415. Read both daily and accumulated rainfall in 0.01" increments. Comes with 40' cable..... **$69.99**

7400 Perception II® State-of-the-art weather technology. Ideal for keeping track of climate conditions inside the home. No installation required. Looks similar to 7425. • Indoor temperature -32°F to 140°F • Barometric pressure with memory recall • Humidity • Alarms for temperature, humidity, time, and barometric change **$139.99**



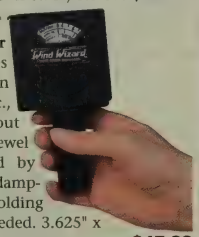
7440 Weather Monitor II® Shows all weather monitoring functions and clock on an back lit, .1.875" x 4.375" LCD display. • Temperature readings of –50 to 140°F (outside), 32° to 140°F (inside) • Wind calculations, including direction in 1° or 10° increments, speed to 175mph, and high wind speed and wind chill to –134°F • Barometer measuring barometric pressure with memory recall and trend arrow • Indoor high and low humidity from 10%-90% (outside optional) • Alarms for temperature, wind speed, wind chill, humidity, time and barometric trend • 5.25" x 5.875" x 3" **$269.99**

7859 External Temperature/Humidity Sensor For 7440. Measure outside humidity, dew point and temperature. Includes 40' cable..... **$119.99**

WIND METERS

0271 TurboMeter™ Wind Speed Indicator A turbine, suspended on sapphire jewel bearings, responds to the lightest winds • 3-digit LED display for viewing in sunlight or at night • Reads speed in miles/hour, knots, feet/minute, or meters/second. • Requires 3 "AAA" batteries (not included). 5.625"h x 2.625"w x 1.125"d, 3 oz..... C/O **$79.99**

0276 Windscribe Ultrasonic Wind Meter Reads current wind speed, headwind, tailwind, 5-second and running average. Select from mph, km/h, fpm, m/s, f/s or knots, plus temperature and wind chill in tenths of °F or °C. Sensitive to breezes as low as 0.4mph, and as high as 150mph. Three configurations (above) include handheld use with adjustable lanyard, tripod mount with 1/4" thread, and mounting bracket with Velcro® strap. Includes 3V lithium battery (up to 600 hours). 5" x 3" x 0.75", 3.5 oz. **$99.99**



0281 Wind Wizard™ Wind Speed Indicator Accurately measures speed from 0-60mph in miles/hour, meters/sec., and Beaufort. Readout supported by sapphire jewel bearings and steadied by rare-earth, magnetic, damping system. Latching folding handle. No batteries needed. 3.625" x 2.875" x 1" folded, 2.5 oz..... **$47.99**

SOFTWARE

7862 WEATHERLINK® Links a PC and PerceptionII, Weather WizardIII, or Weather Monitor II. Create graphs, calculate average conditions, generate summaries, analyze trends, etc **$149.99**

7866 Same as above, for Mac.. Closeout **$99.99**

MIDLAND

WR-300 Specific Area Message Encoding Weather Radio • 20 programmable counties • AM/FM and 7-channel weather radio • Time and alarm clock with full date display • 10 memory channels • Ability to add up to 8 alerts (i.e. AMBER) • Ability to remove alerts (i.e. flood - if you live on a hill) • Choose between single, multiple, or all-county codes • Uses analog and digital signaling.. **$49.99**

74-200 Digital Weather/Hazard Alert Monitor Provides 24-hour National Weather Service information from 7 NOAA channels for maximum capability up to 50 miles. Eight-character LCD displays up to 56 types of S.A.M.E. watches or warnings and monitors status of user selectable warning system. Weather Command button switches from alert mode to full monitoring. Clock displays time and date and has alarm functions. Telescoping antenna, external antenna input and alert device output jacks. Operates from 9-14VDC and 117VAC with supplied adapter. Accepts 9V battery for backup during outages. 7.75"w x 2"h x 5"d, 18 oz. **$49.99**

Look For This NEW & Check Out AES' Latest Additions.

We accept I.M.P.A.C.® Government Credit Cards

ASTRON CORPORATION

POWER SUPPLIES

• 105–125V AC input, 13.8V DC output; internally adjustable from 11–15V • Electronic regulation with fold-back current limiting and crowbar over-voltage protection • Heavy-duty heat sink • 3-wire cord • 1-year warranty • Made in U.S.A.

Separate volt and amp meters on RS-20M, 35M, 50M and 70M. Separate volt and amp meters, plus voltage adjustment (2–15V DC) on VS-20ML, VS-35M and VS-50M. RM-35M, RM-50M and RM-60M are rack mount models, plus separate meters.

Model	Cont. Amps	ICS Amps	Size (in.) H W D	Shipping weight	Price
RS-7A	5	7	3.75 x 6.5 x 9	9	$59.99
RS-10A	7.5	10	4 x 7.5 x 10.75	11	69.99
RS-12A	9	12	4.5 x 8 x 10.75	13	79.99
RS-20A	16	20	5 x 9 x 10.5	18	99.99
RS-35A	25	35	5 x 11 x 11.	27	149.99
RS-35A/220V	Same as RS-35A but 220V input				169.99
RS-50A	37	50	6 x 13.75 x 12	46	219.99
RS-70A	57	70	6 x 13.75 x 12	48	259.99
With separate Volt & Amp meters					
RS-20M	16	20	5 x 9 x 10.5	18	119.99
RS-35M	25	35	5 x 11 x 11	27	169.99
RS-50M	37	50	6 x 13.75 x 11	46	239.99
RS-70M	57	70	6 x 13.75 x 12	48	289.99
Adjustable output; separate Volt & Amp meters					
VS-20ML	16	20	5 x 9 x 10.5	20	139.99
VS-35M	25	35	5 x 11 x 11	29	189.99
VS-50M	37	50	6 x 13.75 x 11	46	259.99
Rack mount models; separate Volt & Amp meters					
RM-35M	25	35	5.25 x 19 x 12	38	249.99
RM-50M	37	50	5.25 x 19 x 12	50	279.99
RM-60M	50	55	7 x 19 x 12	60	359.99

POWER SUPPLIES WITH ADDED FEATURES

RS-4L Has a built-in cigarette lighter receptacle in the front panel. 13VDC @ 4A peak, 3 Amps continuous. 3.5"h x 6.5"w x 4.25"d, 6 lbs **$49.99**

RS-12S With built-in speaker. Rated 13VDC @ 12A peak, 9A contin. 4.5"h x 8"w x 9"d, 13 lbs **$89.99**

SWITCHING POWER SUPPLIES

SS-25 12V DC, rated 20A continuous, 25A ICS. 3"h x 7"w x 9.5"d, 4.2 lbs..... **$109.99**

SS-25M Same as above with volt and amp meters **$129.99**

SS-30 12V DC, rated 25 amps continuous, 30 amps ICS, 3.75"h x 7"w x 9.5"d, 4.5 lbs..... **$119.99**

SS-30M Same with volt/amp meters..... **$139.99**

POWER INVERTERS

12/115 General Purpose Converts 12V DC to 115VAC @ 60Hz. Provides convenient, mobile, AC house current (boat, car, truck, etc.). Powers a ham rig, small household appliance, TV, tools and lights up to 200W continuous (peaks up to 240W, overload protected). Produces square wave output, not recommended for devices where high transients are not tolerable. 4.5"h x 8"w x 9"d, 9 lbs C/O **$34.99**

N2412-12 28V Aircraft Converts 22–32V DC input to 13.8V DC output @ 10 amps. Eliminates tapping into a 28V battery for 12V power **$49.99**

N2412-24 Same as above, rated at 20A .. **$79.99**

AIM

SMALL POWER SUPPLIES

38-384 Light-duty DC Supply *(pictured)* Input: 115 V AC • Output: 13.8V DC regulated @ 4A • Front panel binding posts • LED indicator, fuse protection • 7.75"d x 4.75"w x 3"h, 5.5 lbs **$39.99**

38-305 AC Adapter Provides multiple low-voltage DC to operate various battery powered equipment requiring 3, 4.5, 6, 7.5, 9 or 12V DC with a max. current rating of 500ma. Multiple application plugs and 9V snaps fit most devices **$9.99**

38-312 Regulated AC Adapter Multi-voltage with multiple plugs and 9V snaps. Selectable 1.5, 3, 4.5, 6, 7.5, 9 or 12V DC regulated with a maximum current rating of 1200ma. to operate a wide range of battery operated devices..... **$29.99**

DIAMOND ANTENNA

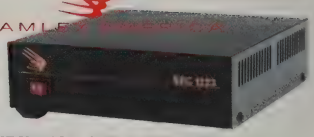
GZV-4000 Switching Mode DC Power Supply with Built-in Speaker 120V AC input • Variable output: 5–15V DC with center detent at 13.5V DC • 40 amps continuous rating, 100% duty cycle • Over temperature, overload, short-circuit protection with current foldback at approximately 42 amps • Overload indicator • Selectable monitoring of voltage and current • DC terminals on rear • Cigarette lighter jack on front • Filtered AC line • 8.25" x 13" x 4.5", 8 lbs **$179.99**

LA CROSSE TECHNOLOGY

3362U Power Cost Controller Provides monitoring of electricity consumption. Approximately 3W to 1800 W range, ideal for use with a large variety of 120VAC 60Hz (15A) appliances. • Cost monitoring and forecasting • Instantaneous power consumption (Watts) • Maximum load power (maximum Watts) • Total kWh consumption • Includes LR-44 button cell **$29.99**

RS-204U Remote Control Outlet System Control multiple outlets by remote control. Units plug into existing outlet to turn on/off lamps, tools, appliances, etc. – up to 20A. Operates up to 80', even through walls. Includes remote and 2 outlets. Uses 2 AAA batteries (not included) **$29.99**

SAMLEX



SWITCHING POWER SUPPLIES

SEC-1223 Low Cost, Base Station Power Supply for HF, UHF & VHF Transceivers Switching mode design • 23 Amp rating • Current limiting • Short circuit protection • Overvoltage protection • Anodized black chassis and powder coat wrinkle black steel cover • Input: 110-120VAC, 200-240VAC • 4.9A input current • 13.8VDC output voltage • 23 Amps output current (24 Amps maximum) • 3-year waranty • 7.2" x 8.7" x 2.2", 3.3 lbs **$99.99**

SPS-1204UL 3.5A Switching Supply Small and lightweight, provides highly regulated DC power. Cigar lighter output socket on front panel and wire terminals on rear. Over-voltage protection, current limiting, illuminated On/Off switch. UL and cUL approved • 110-125 VAC input • 13.2 VDC output • 3.5 Amps • 2"h x 4"w x 6.3"d, 2 lbs..... **$29.99**

DC – AC INVERTERS

SI-175HP 175 Watt 12VDC-110VAC Inverter Useful anywhere when 110VAC isn't available – boats, RVs, emergency, etc. Uses high efficiency switching mode design with modified sine wave output voltage and low idle power draw (<0.05A). Overload protection, low battery alarm and shut down. Cigar lighter • 10-15VDC input • 115 Volts RMS output • 175W (continuous), 350W (surge) • 1.6"h x 4.7"w x 5.4"d, 1.8 lbs **$29.99**

SI-400HP 400W 12VDC-115 VAC Inverter Similar to the **SI-175HP**, but higher (400W) rating. Cigar lighter input connector and battery clamp included • Input Voltage: 10-15 VDC input • 115 Volts RMS output • 400W (continuous), 800W (surge) • 2.4"h x 6.3"w x 6.3"d, 2.9 lbs **$49.99**

FCP-1000 12V–1000mA Adapter/Charger For operating or charging cell phones. Wall mount with cigar lighter receptacle • 110-120VAC input • 12VDC output • 1000mA, 19W output current • 2.25"h x 2.75"w x 4.25"d, 1 lb **$9.99**

TRIPP LITE
THE POWER PEOPLE

SURGE SUPPRESSORS

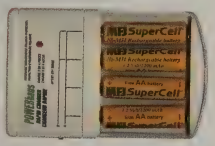
SUPER-7 For spike suppression and noise filtering, 18,000 amp surge suppression, and RFI/ EMI filtering. Seven outlets, 7-foot cord, three diagnostic LED indicators **$19.99**

SUPER-7+TEL Same as above with 6 outlets and fax/modem protection for modular jacks.. **$29.99**

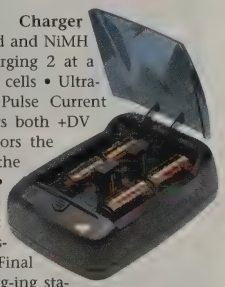
ISOBAR-8 ULTRA Premium Surge Protector Rugged all metal housing – won't break or burn • Isolated filter banks to eliminate interference between connected equipment • Massive 1,200 joule, 96,000 amp spike supression • Diagnostic alarm system indicates wiring faults, protection circuitry and power line status • 8 outlets, extra long 12' cord..... **$79.99**

MFJ ENTERPRISES, INC.

CHARGERS



631 PowerHaus™ Trickle battery charger Perfect for charging NiMH or NiCad rechargable batteries used in the 259B/269 SWR Analyzer or other equipment. It has a removable dust cover and an AC 12 Volt, 800mA wall adapter is included. Reverse polarity protection and a bright red LED indicator that shows charging status. Does NOT charge alkaline batteries. Charges 2 to 4 NiMH or NiCad "AA" batteries in 14 hours. Closeout **$9.99**



633 Intelligent Charger Charges 2 or 4 NiCad and NiMH AAA, AA, C, D (charging 2 at a time) and 1 or 2 9V cells • Ultra-fast, safe Constant Pulse Current charging • IC detects both +DV and -DV, and monitors the voltage level during the charging process • Discharge Mode deep conditions to correct memory, and can rescue dead batteries • Final trickle charge • Charg-ing status LEDs • 120 VAC or 12 VDC operation. **$24.99**

BATTERIES

92AA01 Super Ni-MH "AA" batteries – they have twice the power of standard NiCads. Rated at 1300 mAh, these NiMH 1.2 volt batteries greatly extend operating time and do not exhibit the capacity reducing memory effect of NiCads. Perfect for use with the 259B/269 SWR analyzer with its built-in battery charging circuit. The 631 or 632 charger is recommended **$2.99**

92AA10 Super NiMH 10-pack..... **$24.99**

NCG COMPANY

Power Pocket Portable power for emergencies, hamfests, hiking, etc. The 12V @ 2A/hour sealed lead-acid rechargeable battery provides up to 6X longer talk time than standard packs. Recharges completely in 6-8 hours, with supplied charger. Partial discharges can be recharged to 100% without memory effect. Radio conveniently plugs into included female adapter socket. Compact carrying case with belt loop and shoulder strap. 3.5"w x 1"d x 6.5"h, 30 oz..... **$66.99**

UNI-SOLAR

SmartCharge flexible solar panels for advanced solar battery charging. Sized to charge and maintain 12V batteries. Flexible and durable design makes them very convenient to use.

USF-5 5W Solar Panel Ideally, provides up to 2A-hours a day and automatically compensates for battery self-discharge. For hams, boaters, RV owners and other battery users. Perfect for vehicles that stay idle for extended periods. • Lightweight • 10" x 20" • For lower use applications • 0.54 lbs..... **$89.99**

USF-32 32W Solar Panel Heavy duty, provides more than 12A-hours (ideally) a day. Meets demands for portable ham operations, lighting, radios, stereos, fish finders, etc. Use multiple units for more capacity. • 17" X 60" • 2.14 lbs. **$269.99**

VANCO™

P-212 2-Outlet Cigarette Plug Adapter *(left)* Use two 12V accessories from 1 outlet..... **$4.99**

P-212B Dual Cigarette Socket *(top right)* Enables two 12 volt accessories to be used from one outlet, comes with replaceable 15 amp fuse..... **$8.99**

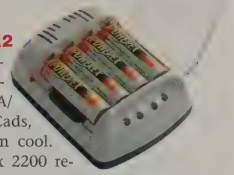
P-12R 2-Contact Cigarette Plug *(bottom right)* Solder type with strain relief and grip end... **$1.99**

P-12V Cigarette Plug Cigarette lighter plug with leads..... **$1.99**

P-12X Cigarette Lighter Plug Easy to use solderless plug. Crimp wire to terminals..... **$1.69**

MAHA

CHARGERS



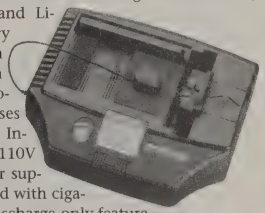
MH-C401FS4AA2 Cool Charger Microprocessor controlled. Charges AA/ AAA NiMH/NiCads, while keeping them cool. Includes 4 PowerEx 2200 rechargeable NiMHs & car cord. Over-charge prevention. 100-minute or 5-hour charging **$49.95**

MH-C204F Smart Rapid Charger/Conditioner Charges 2 or 4 AA/AAA NiCad/NiMH rechargeables in 2-3 hours. Rejuvenate and restore dead batteries. 110V operation or can be used on 12V supply and in a car with the optional kit..... **$24.99**

MH-C204F8AA22 Above, with 8 PowerEx 2200 mAh AA rechargeable NiMHs, car cord **$49.95**

MH-C888 Universal Drop-In Rapid Charger/Conditioner Special FLEX negative pulse feature prevents crystallization of 4.8 to 12V NiMH/NiCad battery packs. Deep-conditioning allows 3 consecutive charge and discharges. Built-in switching AC power supply, for home, office and 12V portable use.... **$59.99**

MH-C777 Universal Charger/Conditioner Charge nearly any type of 4.8V to 12V NiCad or NiMH battery pack. Conditioning feature "exercises" batteries to improve capacity, and in some cases can rejuvenate a dead pack. 110 and 12V operation. Car kit is included..... **$49.99**



MH-C777 PLUS II Smart Universal Charger and Analyzer/Conditioner Charges most NiMH, NiCad, Li-ion and Li-polymer battery packs. Built-in circuitry with LCD status automatically senses battery voltage. Includes external 110V switching power supply and 12V cord with cigarette lighter • Discharge-only feature retains discharged capacity on screen • Enhanced Li-ion algorithm reduces charging time **$89.99**

RECHARGEABLE NiMH BATTERIES

4-AA-220-BH PowerEX AA NiMH Now rated 1.2V @ 2200mAh • Recharge 500 to 1000 times • Memory free • For power intensive devices (digital cameras, MP-3 players, GPS) (pack of 4) **$18.99**

9V 8.4V, 170mAh (9V sized)..... ea. **8.99**

MH-FNB-72 Ultra high capacity 1700mAh, 9.6V NiMH exclusively for the Yaesu FT-817. Includes recharging cable for use with MH-C777, MH-C777PLUS, or MH-C888 (shown above).... **$59.99**

MFJ Switching Power Supplies

Power your HF transceiver, 6 meter/2 meter/440 MHz Mobile/Base and accessories with these 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies!

No RF hash . . . Super lightweight . . . Super small . . . Volt/Amp Meters . . .

4125

4225MV

4245MV

Small & Lightweight – *MightyLites™* are so light and small you can carry them in the palm of your hand! Take them with you anywhere – no more hauling around heavy, bulky supplies.

Lightweight – The 25A *MightyLite™* only weighs 3.7 pounds – *5 times lighter* than an equivalent conventional power supply. And, the 45A model weighs just 5.5 pounds!

No RF hash – Some switching power supplies generate objectionable RF hash in your transmitted and received signal. But, these babies are clean!

Low Ripple and Highly Regulated – Less than 35 mV peak-to-peak ripple and better than 1.5% regulation under full load.

Fully Protected – You won't burn up these power supplies! They are fully protected with overvoltage and overcurrent protection circuits.

Worldwide Versatility – Switchable AC input voltage for 85-135 or 170-260VAC.

Mighty Features – Model **4225MV** and **4245MV** feature a front-panel voltage control which varies output voltage from 9 to 15VDC. Front-panel mounted 5-way Heavy Duty binding posts and cigarette lighter socket for mobile accessories. The **4245MV** has two sets of quick-connects on the rear for accessories. Dual three inch illuminated meters monitor load voltage and current. Internal fan.

Three models to choose from . . .

4125 (left) Basic, no metering. 25A maximum or 22A continuous. Size: 5-1/2 x 2-1/2 x 2-1/2 inches, 3.5 pounds **$99.99**

4225MV (center) 25A max. or 22A continuous. Size: 5-3/4 x 4-1/2 x 6 in., 3.7 lbs **$139.99**

4245MV (right) 45A max. or 40A continuous. Size: 7-1/2 x 4-3/4 x 9 in., 5.5 lbs **$189.99**

4103 Miniature Switching Power Supply – Delivers up to 40W (13.8 VDC @ 2.89A), RFI and Hash FREE. Only 4-1/8 x 2-5/8 x 1-3/8 in., weighs 10 oz. Ideal for the FT-817 and other QRP rigs. Input: 100-240 VAC @ 47–63 Hz. Over voltage, over current, and over temperature protected. Includes a DC output cable with a 2.1mm x 5.5mm plug that fits most MFJ, other ham accessories and QRP rigs. Adapter cable for the Yaesu FT-817 is included **$39.99**

MFJ 35/30 Amp Adjustable Regulated DC Power Supply

Massive 19.2 pound transformer . . . No RF hash . . . Adjustable 1 to 14 VDC . . .

Super Heavy Duty – This conventional power supply is excellent for powering all types of amateur transceivers and accessories. A massive 19.2 pound transformer allows this power supply to easily deliver 35A maximum and 30A continuous. It's highly regulated with load regulation better than 1% and ripple voltage less than 30 mV.

Fully protected – Over voltage, fold back and short circuit protection. A whisper quiet fan keeps components cool by increasing speed as load increases.

Adjustable Voltage – Front panel control allows adjustment from 1 to 14 VDC with a convenient detent set at 13.8V. Dual front-panel meters monitor voltage and current.

Versatile – There are three sets of output terminals including a pair of Heavy Duty, 5-way binding posts for transceivers, two pairs of quick-connects for accessories and a cigarette lighter socket for mobile accessories.

Size – 9-1/2 x 6 x 9-3/4 inches, 20.6 lbs.

MFJ's *No Matter What*™
One Year limited Warranty

MFJ will repair or replace (at MFJ's option) these products for 1 year.

4035MV **$139.99**

MFJ High Current Multiple DC Power Outlets

Distribute power to transceivers and 6 or more accessories from your 12 VDC power supply

1118 Deluxe Multiple DC Power Outlet – The most versatile and highest current rating. Connect to a 12VDC source and distribute power to 2 transceivers and 6 or more accessories. Features 2 pairs of Super Heavy Duty 30A, 5-way binding posts, fused RF bypassed and rated 35A total draw. And, 6 pairs of 5-way binding posts for accessories rated for 15A total draw. Master fuse, On-Off switch with power LED. Built-in 0-25 VDC voltmeter, 6 ft. of 8-gauge, color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Size: 12.5" x 2.75" x 2.5"..... **$74.99**

1116 Similar to the 1118 but does not have 30A posts. Has "Power On" LED and 0-25 VDC voltmeter. Rated at 15A total draw **$49.99**

1117 Similar to the 1118 but no meter, power LED or On-Off switch. Powers up to 4 radios at the same time. Two 35A single posts and one 35A dual post. Size: 8 x 2 x 3 in., fits almost anywhere **$54.99**

1112 Similar to the 1116 but no On-Off switch, power LED, voltmeter or fuse **$34.99**

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We accept I.M.P.A.C.® Government Credit Cards

MIRAGE Power Amplifiers

Boost Mobile, Base or Handheld Power!

All Modes: FM, SSB, CW . . . Superb GaAs FET preamplifier in G Models
Overdrive, high SWR, Over-temperature protection . . . Remote controllable

2 Meters All Mode 160W • 200W 300W

B-5018G 160W output with 50W input. Requires 17 to 24 amps @ 13.8VDC. Low Noise GaAsFET Preamplifier. 5-1/2"w x 3"h x 12"d..... **$299.99**

Power Curve – typical for the B-5018-G									
IN	0.5	5	8	10	15	20	25	35	50
OUT	---	52	99	119	125	130	135	145	160

B-2518G 160W output with 25W input. Low noise GaAs FET preamplifier. Requires 17 to 24 Amps @ 13.8VDC. 5-1/2"w x 3"h x 12"d .. **$299.99**

Power Curve – typical for the B-2518-G									
IN	0.5	5	8	10	15	20	25	---	---
OUT	5	56	91	111	135	153	160	---	---

B-1018G 160W output with 10W input. Low noise GaAsFET preamplier. Requires 17 to 24 Amps @ 13.8VDC. 5-1/2"w x 3"h x 12"d..... **$369.99**

Power Curve – typical for the B-1018G									
IN	0.5	5	8	10	---	---	---	---	---
OUT	30	150	155	160	---	---	---	---	---

B-2530G 300W output with 25W input. Low noise GaAsFET preamplier. Requires 48 amps @ 13.8VDC. Size: 12"w x 5"h x 12"d..... **$689.99**

Power Curve – typical for the B-2530G									
IN	1	3	5	10	25	---	---	---	---
OUT	30	95	140	250	300	---	---	---	---

B-5030G 300W output with 50W input. Low noise GaAsFET preamplier. Requires 48 amps @ 13.8VDC. Size: 12"w x 5"h x 12"d..... **$669.99**

Power Curve – typical for the B-5030G									
IN	1	3	5	10	25	50	---	---	---
OUT	---	---	55	150	220	300	---	---	---

B-320G Up to 200W output. Low power input for Handheld Radios 250mW to 10W. High power input for mobile radios, 10W to 50W. Low noise GaAS FET preamplifier. **$429.99**

35W/100W for your HT

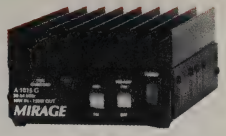
B-34G (left/bottom) Boosts 2M HTs with up to 8W output to 35W+ output. SSB/FM. GaAsFET preamp and mobile bracket. 13.8 VDC @ 4A..... **$99.99**

B-34 (left/top) Like B-34G but FM only, no preamp or mobile bracket. 3-1/8" x 1-3/4" x 4-1/4".. **$79.99**

B-310G (right) Boosts 0.25 to 8W 2M Handhelds to 25 to 100W+ output. Includes preamp, mobile mounting bracket & BNC to amp patch cable. 13.8 VDC @15A. 4-3/4"w x 1-3/4"h x 7-1/4"d. **$179.99**

Power Curve – typical for the B-310G									
IN	.25	0.5	1	2	4	6	7	8	---
OUT	25	50	75	95	100	100	100+	100+	---

6 Meters All Mode 150W



A-1015G Covers 50 to 52MHz and provides 150W output with 10W input; FM/SSB/CW. Built-in Low Noise GaAsFET receive preamplifier, internal T/R switching and remote keying. 13.8 VDC @ 18-23 Amps. 5-1/2"w x 3"h x 12"d., 5 lbs **$349.99**

2M/440 Dual Band 35/45W

BD-35 For DUAL-BAND HTs with up to 7W output. Produces up to 45W output on 2M and 35W on 440 MHz. Automatic band selection, full duplex operation. Single connector for dual band radios and antennas. 12-15 VDC @ 7A. Size: 5"w x 1-3/4"h x 5"d. Mobile bracket included..... **$149.99**

Power Curves – typical BD-35 output power								
Watts Out (2M)	30	40	45	45+	45+	45+	45+	45+
Watts Out (440 MHz)	16	26	32	35+	35+	35+	35+	35+
Watts In	1	2	3	4	5	6	7	8

REMOTE CONTROL HEADS

RC-1 – Allows remote control of Mirage amplifier functions: Power and preamp On-Off, FM/SSB mode select. Only 1.75" x 3.75" x 2.5". Comes with 18 ft. head to amplifier control cable. **$45.99**

RC-2 for B-XX18G series amplifiers..... **$45.99**

More MIRAGE amps...

including models for 220MHz, 430-440MHz. Also, continuous duty Repeater Amplifiers for 6, 2, 1-1/4 meters, 70 cm, 450 MHz & ATV.

See the Price Guide under MIRAGE

Low Noise GaAsFET Receive Preamps

• Improves weak signal reception • <0.8dB noise figure • 15–22dB gain with selectable level prevents receiver overload and intermodulation • Automatic TR switching up to 100W thru put • Rugged die-cast enclosures • In-Shack or Mast-Mount models

In-Shack Models – $129.99 ea.

KP-1/6M 50-54MHz **KP-1/2M** 144-148MHz
KP-1/440 430-450MHz
KP-1/10M for 28-30MHz – Closeout **$99.99**
KP-1/220 220-225MHz – Closeout **$99.99**

Mast Mount Models – $179.99 ea.

KP-2/6M for 50-54MHz **KP-2/2M** 144-148MHz
KP-2/440 430-450MHz
KP-2/10M 28-30MHz – Closeout **$119.99**
KP-2/220 220-225MHz – Closeout **$129.99**

MFJ DC Power for your MIRAGE Amplifier

4035MV Heavy Duty - the transformer alone weighs 19.2 lbs! Voltage front panel adjustable 0–15 Volts. Dual meters show Volts and Amps. Rated 30A continuous, and 35A peak. Fully regulated and fully overload protected. 110 VAC..... **$139.99**

VECTRONICS

. . . fine amateur radio products

Versatile 300W Antenna Tuner

VC-300DLP Match any antenna • Full 1.8-30 MHz coverage • Rated 300W PEP, 200W continuous; 150W on 1.8 MHz • Continuous rotation capacitors and 12-position switched inductor • Peak reading backlit Cross-Needle Meter • Built-in 8-position antenna switch and dummy load 10-1/4"w x 9-1/2"d x 3-1/2"h, 3.4 lbs **$149.99**

High Power Roller Inductor Tuner

HFT-1500 Match any antenna Full 1.8-30MHz coverage • Rated 2KW PEP, 1KW continuous • Three continuously variable components: two 4.5kV capacitors and a crank driven a roller inductor with digital counter • Lighted Cross-Needle SWR/Wattmeter and 20-segment Digital Bargraph • Built-in 6-position coax switch and 4:1 balun • 5-1/2"h x 12-1/2"w x 12"d, 10 lbs..... **$399.99**

More Vectronics Amateur Products

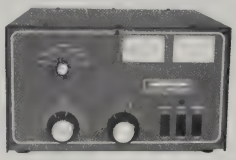
AT-100 Tuned active SWL antenna **$79.99**
DL-300M 300W dry dummy load..... **$44.99**
DL-650M 1500W dry dummy load..... **$74.99**
DL-2500 2500W dry dummy load **$179.99**
VC-300M 300W mobile tuner..... **$99.99**
VC-300D 300W tuner w/digital bargraph.. **$179.99**
HPF-1 75/300Ω high pass TVI filter..... **$24.99**
HPF-2 Dlx. 75/300Ω high pass TVI filter .. **$29.99**
PM-30HF 1.8-60 MHz SWR/wattmeter..... **$79.99**
PM-30UV 144/220/440MHz SWR/wattmeter. **$89.99**
LP-30 1500W low pass filter **$69.99**
LP-2500 2500W low pass filter **$129.99**

See the Price Guide for a list of Vectronics Kits

AMERITRON

811A Amplifiers

- Cover 160-15M, including WARC/MARS bands
  User Modifiable for 10/12M with proper license
- All Modes
- HD silicon steel core Plate Transformer (17 lbs.)
- Tuned Input • ALC Control • Quiet Air Cooling
- Dual Meters show Plate Voltage, Grid and Plate Current • Vernier Reduction tuning
- Comes wired for 120V Operation
- Size: 15.5"d x 13-3/4"w 8.25"h, 52 lbs.



AL-811 – Uses (3) 811A transmitting tubes. Delivers 600W PEP output SSB and 500W CW..... **$599.99**

AL-811H – Uses (4) 811A transmitting tubes. Delivers 800W PEP SSB or 600W CW **$749.99**

3-500Z Amplifier

- Covers 160-15M, including WARC bands.
  User modifiable for 10/12M with proper license
- HD silicone steel core Plate Transformer (26 lb) and Computer Grade capacitors
- A Full KW PEP! (70% efficiency)
- Tuned Input • Adjustable ALC • Air Cooled
- Dual Cross-needle meters show SWR, Refl. PEP power, Plate voltage, Grid and Plate current
- Operates from 90-140 VAC or 205-250 VAC
- Size: 15-1/2"d x 14-1/2"w x 18-1/2"h, 48 lbs.

AL-80B – Uses a single 3-500Z transmitting tube. Delivers 1000W PEP output SSB and 850W CW. The high-voltage secondary can be wired to reduce plate voltage for efficient operation below 400W for use outside the USA **$1249.99**

Solid State Mobile Amplifier

ALS-500M – Uses (4) 2SC2879 RF power transistors. The ideal amplifier to increase your HF mobile up to 500 Watts. Continuous coverage 1.5–22 MHz* with instant bandswitching, no tuning, no warm-up and SWR protected. Runs nicely from 13.8 VDC mobile electrical system, draws 75A peak current. Size: 3-1/2 x 9 x 15 inches, 5-1/2 lbs. **$699.99**

Solid State Base Amplifier

ALS-600 – No tuning, no fuss, no worries – just turn it on and operate. Continuous coverage 1.5-22MHz*, instant bandswitching, SWR and over power protected. Full 600W output, includes AC power supply. Extremely quiet, very compact. Amplifier and power supply both 6" x 9-1/2 x 12 inches, 30 lbs., total..... **$1129.99**

**Modification kit (MOD-10M) for 10/12M operation is available direct from Ameritron*

www.mfjenterprises.com

3CX-800A7 Amplifiers

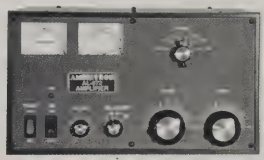
- Cover 160-15M, including WARC bands.
  User Modifiable for 10/12M with proper license
- HD silicon steel core Plate Transformer (32 lb.)
- Tuned Input • ALC Control • Air Cooled
- Dual illuminated Cross-Needle meters show SWR, Plate voltage, Grid and Plate current
- Operates on 90-140 VAC, 200-250 VAC
- Size: 8-1/2"h x 16-1/2"w x 13-3/4"d, 52 lbs.

AL-800 – Uses as a single *Eimac*® 3CX800A7 tube. Delivers 1250W PEP SSB output.....**$1699.99**

AL-800H Uses (2) *Eimac*® 3CX800A7 tubes. Delivers 1500W PEP SSB output.....**$2499.99**

572B Amplifier

- Covers 160-15M, including WARC bands
  User modifiable for 10/12M with proper license
- Heavy Duty silicone steel core Plate Transformer
- Instant 3 second warm up
- Tuned Input • ALC Control • Air Cooled
- Dual illuminated Cross-needle meters show SWR, Plate voltage, Grid and Plate current
- Multi-voltage Operation
- Size: 8-1/2"h x 15-1/2"w x 14-1/2"d, 40 lbs



AL-572 This *Near Legal Limit*™ amplifier uses (4) rugged 572B tubes. Delivers 1300W PEP SSB and 1000W CW continuous output for about 65% of the price a full legal limit amplifier..... **$1349.99**

Super Legal Limit Amplifiers

- Cover 160-15M, including WARC bands.
  User modifiable for 10/12M with license
- Strong Stainless Steel Chassis
- Highly efficient *PeterDahl* tape wound Hypersil® Plate Transformer, capable of 2500W
- Grid and Plate meters show drive, ALC, Power output and PEP Watts
- Size: 18"h x 17"w x 10"d, approx. 77 lbs.

AL-1500 – Uses a single *Eimac*® 8877 Ceramic tube. Only 65W of drive power delivers full legal 1500W CW output. Time-delayed start protects the tube and over-current shut-off removes the drive if amplifier is mistuned..... **$2649.99**

AL-1200 – Uses Ham radio's toughest tube, the *Eimac*® 3CX1200A7. It has a 50W control grid dissipation and can deliver more than 2500W two-tone output for a half hour..... **$2299.99**

AL-82 – Uses a pair of 3-500Z tubes. Delivers 1500W output which is more than other 3-500Z linears because their lighter weight power supplies can't use these tubes to their full potential **$2199.99**

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ATP-100 ADL-2500 ADL-1500 QSK-5 ICP-120/240 ATR-30

ACCESSORIES

ATP-100
Tuning Pulser – Safely tune up RF power amplifiers. Prevents overheating, tube damage, power supply stress and component failure **$49.99**

ADL-2500
Dry Dummy load – Rated 2500W average power for 1 minute on, 10 minutes off, 300W continouous. Air cooled, low VSWR up to 60MHz..... **$189.99**

ADL-1500
Oil Filled Dummy Load – Handles 1500W for 5 minutes. Usable with low VSWR up to 400 MHz. Includes oil and container as pictured **$69.99**

QSK-5
Pin diode T/R Switch – Faster than a vacuum relay. Connects externally to HF RF power amplifiers. Handles 2.5 kW PEP, 2 KW CW **$329.99**

ICP-120/240
In-rush Current Protector – Stops power-up in-rush current surge and absorbs momentary voltage spikes. ICP-120 for 110-120V; ICP-240 for 220-240V ..... each **$79.99**

ATR-30
1500W Antenna Tuner – Tune nearly any antenna system 1.8–30MHz. Rugged, heavy duty components, edge wound, silver-plated roller inductor. Cross-needle meter..... **$549.99**

RCS-8V
Remote Coax Switch – Selects one of five outputs using one feedline and 6-wire control cable. Rated 1KW @ 150MHz, usable to 250 MHz **$139.99**

RCS-4
Remote Coax Switch – Selects one of four outputs by supplying control voltages thru the coaxial cable Rated 1500W from 1.8 to 30MHz.. **$129.99**

ARB-704 RCS-4

ARB-704
Interface Buffer – Prevents damage to radio's internal relay contacts resulting from keying amplifiers with too much control voltage, excessive current or voltage spikes on the relay control line. Compatible with transceivers that provide a ground on transmit. Interface cables optional, requires 12VDC **$49.99**

ARB-704I2 for IC-706 only ... **$49.99**

AWM-30
SWR/Wattmeter – Uses a Cross-needle meter that reads Peak or Average on 300W/3KW ranges up to 30MHz..... **$139.99**

ICOM

PW-1 HF + 50MHz Solid State Linear Amplifier Frequency range: 160-15m, 6m • Power output with 220V input: 1000 PEP SSB, 1000W CW/RTTY (100% duty cycle, QSK) • 100W drive • Built-in all band automatic antenna tuner • Automatic AC voltage selector and band change • Current, voltage, temperature, SWR, output power protectors • Wide range adjustable ALC allows use with almost any rig • Control head may be detached from main unit (shown) • Built-in 110/220VAC supply • 14"w x 10.5"h x 14.5"d, 56 lbs..... **$4549.99**

YAESU

QUADRA SYSTEM HF/50MHz Solid-State Amp Frequency range: 160-15m, 6m • 1000W (6m: 500W) • 100W drive • 4 twin MOSFET PA modules • Dot matrix multi-function LCD • 2 input and 4 output jacks for easy connection to station antenna • Built-in high-speed auto antenna tuner • Panoramic SWR display shows "before tuning" and "after tuning" SWR data • SWR protection • Auto band switching with FT-1000, FT-1000MP, FT-1000MP MK V, MK V FIELD, and FT-920 • 117VAC for 500W; 220V AC for 1000W • 6.25" x 5.375" x 16.25", 59 lbs. **$3999.99**

SGC

52-96 SG-500 SmartPowerCube™ For 500 Watt operation in your base station or mobile, the SG-500 SmartPowerCube™ provides maximum reliability and unattended operation. The SG-500 is microprocessor controlled. It automatically monitors your power needs and selects the correct broadband filter. It also has the most advanced self-protection on the market. For maximum power, under the most demanding conditions, the SmartPowerCube is the professional's choice. • 1.8–24MHz • 500W PEP SSB, 500W CW with optional fan • Auto band switching • 6"h x 13.2"d x 10.8"w, 21 lbs..... **$1249.99**

MIRAGE

VHF/UHF AMPLIFIERS

15 to 300 watts of brute power! Models for 6M–70 cm, base, mobile, repeater or ATV operation • 12V DC • FM (SSB/CW on some models) • 20dB gain GaAsFET preamplifier • Overdrive and high temperature protection • Remote control capability

Model	MHz	Max Input	Max Output	Amps	Pre-amp	Price
A-1015G	50-52	1-15W	150W	23	yes	$349.99
B-34	144-148	8W	35W	4	no	79.99
B-34G	144-148	8W	35W	4	yes	99.99
B-1018G	144-148	0.2-15W	160W	25	yes	369.99
B-2518G	144-148	20-35W	160W	25	yes	299.99
B-2530G	144-148	10-35W	300W	48	yes	689.99
B-5018G	144-148	20-60W	160W	22	yes	299.99
B-5030G	144-148	0.5-50W	300W	48	yes	669.99
B-310G	144-148	0.25-8W	100W	15	yes	179.99
B-320G	144-148	2.5-50W	200W	25	yes	429.99
BD-35	144/440	1-7W	45/35W	7	no	149.99
C-22G	222-225	2W	20W	5	yes	154.99
C-211G	222-225	2W	110W	20	yes	329.99
C-1012G	222-225	10W	120W	25	yes	329.99
C-1022G	222-225	10W	220W	20*	yes	689.99
C-2512G	222-225	30W	120W	25	yes	309.99
D-15N	425-450	2W	15W	3	no	169.99
D-26N	430-450	2W	60W	12	no	259.99
D-1010N	430-450	10W	100W	15	no	379.99
D-3010N	430-450	30W	100W	20	no	349.99
D-1010ATVN	430ATV	10W	100W	20	no	399.99

N = Type-N connectors *at 28VDC

RC-1 Remote Control Head For most Mirage amps. Power/preamp On/Off, SSB/FM mode switch. 18" cable. 1.25h" x 3.75"w x 2.25"d **$45.99**

RC-2 Remote Control Head Same as the RC-1 but works only with the Mirage B1018G, B2518G and B5018G amplifiers **$45.99**

DOCKING BOOSTER

Slide an HT in and it instantly becomes a mobile or base! Selectable voltages allow use of most HTs. Place on dashboard or desk, or use mounting bracket for security and conveniece with tilt. Boost mobile or base station levels, up to 50W. • Replace HT battery • Requires 13.8 VDC

B-24G For 2m FM Handhelds Up to 50W output with 0.5–8W input • 18dB GaAsFET preamp with on/off switch • LEDs show preamp on, on air, and transmit • 4.25"h x 3.35"w x 3.25"d • HT adapters available, see Price Guide..... **$109.99**

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LOGIKEY

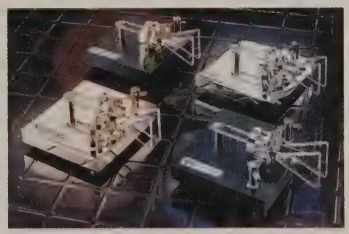
IDIOM Press

Full featured version of the famous Super CMOS III keyer design!

K-3 Non-volatile memory • 6 editable messages, 1,530 characters • Messages can include programmed functions like automatic contest numbers and speed changes • Message can allow paddle inserted text & loop for continuous replay • Linear speed control (5-60 WPM) • Adjustable weighting and monitor tone • Tune function • Auto character spacing if desired • Can emulate others, including Curtis "A" timing • Ultra Speed mode for messages up to 99 WPM • Contest serial numbers 001-9999, with push button decrement • Beacon capability • Full compensation for QSK rig timing • Keys solid-state or grid-blocked tube rigs • 12V DC, < 0.1 amp • 4.25"w x 2.25"h x 4.75"d..... **$129.99**

HK-3 Hook-up kit for the K3 Includes Paddle-to-Keyer cordset; RCA-to-RCA keyer output cable and 2.5 mm DC power plug cordset for 12V.... **$10.99**

BENCHER, INC.



IAMBIC & SINGLE LEVEL PADDLES

Affordable standard for CW operators world-wide.

BY-1 Black base **$109.99**
BY-2 Chrome **$129.99**
BY-4 Black and gold..... **$169.99**

Look For This NEW & Check Out AES' Latest Additions.

Secure www.aesham.com

VIBROPLEX®

The **Original Bug**, c. 1904, is still made using tools similar to those used by inventor Horace Martin. Designed for 20-50+ wpm.

110 Standard Painted base/chrome top **$169.99**
105 Deluxe Polished chrome base and top parts with fine jewel movements **$199.99**
100 Presentation Polished chrome base and 24K gold-plated base plate and chrome top parts, fine jewel movements..... **$269.99**
090 Gold Gold-plated base, chrome top **$309.99**

Vibrokeyers: Single lever paddle *(left)* initiates automatic dots and dashes of an electronic keyer. Iambic model *(right)* allows automatic dot/dash insertion.

Vibrokeyer
120 Standard Black base, chrome parts. **$149.99**
115 Deluxe Chrome base and top parts with jeweled movements **$184.99**
113 Gold 24K gold-plated base and top parts with jeweled movements..... **$279.99**

Iambic
135 Standard..... **$149.99**
130 Deluxe **$189.99**
125 Presentation 24K gold-plated base and top parts with jeweled movements **$249.99**
123 Gold..... **$279.99**

145 Brass Racer Iambic *(left)* Solid brass Iambic paddle on a polished hardwood base **$129.99**
150 Square Brass Racer *(right)* Solid lacquered brass Iambic paddle mounted on a polished hardwood base. Magnetic action, no springs.. **$139.99**

Straight Keys *(left)* Unique mechanical action, unlike any straight key ever manufactured.
155 Standard..... **$149.99**
160 Deluxe..... **$189.99**
153 Gold **$279.99**

Deluxe Double Keys *(right)* Choice of iambic and straight or vibrokeyer and straight key. Double keys allow you to instantly switch from using an electronic keyer to the personal touch of a straight key.
165 Straight key/Iambic..... **$329.99**
170 Straight key/Vibrokeyer..... **$329.99**

Secure
www.aesham.com

NORCOMM
TONE SIGNALLING PRODUCTS

TONE SIGNALLING

NC-101 Encoder Micro-mini. CTCSS encoder, field tunable to any of the CTCSS tone frequencies between 67Hz and 254Hz. 5 to 15VDC. 0.60"w x 0.80"l x 0.15"h *NorFax™ #5040*..... **$21.99**

NC-104 Programmable Encoder Sub-miniature field programmable CTCSS encoder unit for limited space. Provides standard 37 EIA CTCSS tones + 69.37, 97.4 and 205.5Hz. 7 to 24VDC. 0.625"w x 0.80"l x 0.170"d *NorFax™ #5150* **$26.99**

NC-106 Programmable CTCSS Encoder/ Decoder A sub-miniature crystal-controlled digital unit. Field programmable with dip switches providing any one of the standard 37 CTCSS tones + 97.4Hz. 6-24VDC. 0.85"w x 1.35"l x 0.28"h *NorFax™ #5230* **$62.99**

NC-401 Touch-Tone® Decoder Unique micro-mini unit combining 2 distinct multi-addressable decoders for control of remote or local applications. Decodes all 16 DTMF characters with an address length of 1-14 characters and features E²PROM memory for storage of both primary and secondary codes, input/output functions, deadbeat disable and user outputs, plus default reset. Programming easily performed by means of a conventional DTMF encoder. 6-24VDC. 0.80"w x 1.37"l x 0.23"h. *NorFax™ #5545* **$62.99**

NorFax™ auto fax retrieval system – 530-477-8403

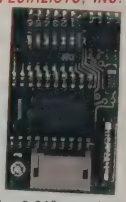
UM Unified Microsystems

XT-4 CW Memory Keyer Designed for QRP, Field Day, mobile CW county hunting - any portable operation. Also goes well in the shack with smaller rigs. 8-45 WPM. **Memories:** 4 with 100 Morse characters each positive keying output only via RCA phono jack output. 1/8" (3.5mm) stereo jack input. Paddle reverse for left or right-hand operation. Auto power save mode w/flashing LED engages after 30 min. of inactivity. Requires 9V alkaline battery..... **$69.99**
KC-4 Cable set for XT-4..... **$9.99**

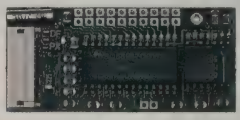
VK-64 Combination CW and Voice Keyer Store and play back CQs, contest exchanges, etc. in both CW and voice. Voice keyer has 4 memories (up to 15 seconds each). Set CW keyer between 10-45 WPM (4 memories programmable with 300 characters each). • Configure for iambic A/B keying, weight, side tone, and paddle reverse • Tune function • Auto repeat and 1/2 to 12-second delay (CW and message #1) • Run stand alone through panel or control with PC/laptop through printer port (standard 25-pin) • Use with major contest logging programs • 12V wall transformer power supply **$229.99**
VKC-8 Cable Shielded audio cable semi-kit wired and tested except for microphone and transmitter connectors (8-pin) **$24.99**

COMMUNICATIONS SPECIALISTS, INC.

TONE ENCODERS & DECODERS

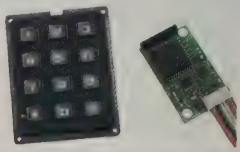


SS-64 Programmable CTCSS Encoder Super small for easy install in most HTs. Standard with 64 EIA tones between 33 and 254.1Hz. Individual tones dip-switch selectable 0.66" x 1.08" x 0.21", requires 6–28 VDC..... **$28.99**



TS-64DS Field programmable CTCSS Encoder-Decoder DIP switch programmable for 64 EIA tones 33-254.1Hz. 1.25" x 2", 0.3", 6–28 VDC..... **$57.99**

TE-32 Multi-tone Encoder Provides direct access from a front dial rotary switch to all EIA CTCSS tones from 67.0 to 203.5Hz, allowing users to access various repeaters. Great for mobile or test bench. 5.25" x 3.3" x 1.7", 6–30 VDC **$49.99**



ID-8 Multi-Featured Automatic Morse ID'er Programmable via 12-button pad • Eight changeable messages • 200 characters total • CW speed: 1-99 wpm • ID interval timing: 1-99 min. • ID hold-off timing: 0-99 seconds • CW tone: 100-3000Hz • 6-20VDC • 1.85" x 1.12" x .0.35" **$69.99**
Wiring diagrams and lists of *Fax-on Demand* documents can be obtained from **www.com-spec.com.**

AMECO

Combination Code Practice Oscillator and CW Monitor Volume control, 3" speaker, & headphone terminals. Requires a code key and a 9V battery
OCM-2K *Kit* **$19.99** **OCM-2W** *Wired* **$24.99**

K-1 *(left)* Low-cost general purpose key w/phenolic base, adjustable tension, contact spacing.. **$10.95**
K-4 *(right)* Deluxe high quality key. Polished brass base, shorting bar **$16.95**

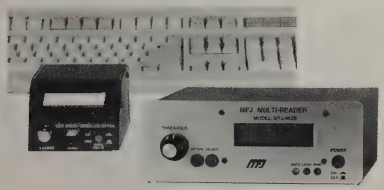
MFJ ENTERPRISES, INC.

FOR LEARNING/PRACTICING CODE

414 Professional Classroom Tutor Features include LCD readout, printer port and audio tape recording output. Build and save 3 custom sets for extra practice. Or combine these to obtain 48 characters for using the KOCH method. Customize random words for practice. Use with 144/440MHz FM HT or HF transceiver for on-air code practice. VECs can give up to 16 exams. Full-featured memory keyer (1000 character memory, semi/auto modes, iambic A/B, reverse paddle, change speed and tone on-the-fly). Practice sending into the 414 with iambic paddle or straight key. Use built-in or external speaker or headphones. Includes serial port cable and open-end patch cable. 12 VDC or 110 VAC. 8.5"w x 2.25"h x 6"d **$189.99**

554 Code Practice Oscillator Designed for classroom use with great sound that enhances learning of Morse code. Plenty of volume from a built-in 1W amp and 3" speaker. Volume control and adjustable tone control (400-1000Hz). On/off switch, power ON LED, 1/4" key jack, 3.5mm external speaker jack and DC input jack. Requires 12V DC. All-metal enclosure. 4.25" x 1.5"h x 5"d **$79.99**

550 Telegraph Key..... **$7.99**



AIDED CW SENDING/RECEIVING

452 Super CW Keyboard *(left)* A stand alone CW keyboard that includes an RFI suppressed keyboard, a two line 16-character non-volatile LCD display. Send effortless CW by just typing the characters as you see what you are sending on the display. No computer to boot up, no program to load. • Speed: 5–100WPM • Weight: 5–95% • Sidetone: 300–3000 Hz sidetone • Serial Numbers (0–9999) • Has buffer and memory full audible indicators. Keys solid-state and tube-type rigs. Requires 12VDC..... **$129.99**

462B MultiReader™ *(right)* Supply this unit with audio from a receiver or transceiver; tune in CW, RTTY, ASCII or AMTOR (FEC) signals; and read the auto decoded text directly from the 2-line, LCD display. • Copy most standard shifts and speeds in all modes • *AutoTrak™* feature helps track and decode high speed CW • 8K memory stores several pages • PLL modem technology digs out weak signals • Precision tuning indicator • Printer port • 6.25"w x 2.5"h x 6.25"d • Requires 12VDC..... **$169.99**

461 Pocket-Size Morse Code Reader™ No cables to hook-up and no other equipment needed. Simply hold the unit near your receiver and it instantly displays CW text in English! Automatic speed tracking and instant 140-character replay on a 32-character LCD. If desired, a serial port lets you display CW text on a monitor using a computer and terminal program. Connect directly to a receiver with optional cable when it's too noisy or CW is unwanted. • Battery saver (uses 9V – not included) • 2.25"h x 3.25"w x 1"d, 5.5 oz **$79.99**

5162 Receiver Cable Connects the 461 to a radio's external 3.5mm jack **$5.99**

464 CW Reader With Built-In Keyer This unit simply plugs into a transceiver's speaker/phone jack and key jack. Add a single or iambic paddle or computer keyboard and it's ready for easy, complete CW operation. Sends and reads CW at 5 to 99 WPM with automatic speed tracking. • Easy menu operation • Large 2-line LCD shows "send and receive" text • Front panel speed and volume controls • 4 message memories • Type-ahead and read-again buffers • Adjustable weight and sidetone • Built-in speaker • RFI proof..... **$169.99**

KEYERS

407D Deluxe Electronic Keyer Features dot-dash mem., self completing dots and dashes; jam-proof spacing. RF proof, instant start. Single squeeze, or straight key. Front panel controls: speed, weight, tone & volume, ON/OFF, tune, auto or semi-automatic. Selectable A or B-type iambic keying. Built-in speaker, uses 9V battery. 7"w x 2"h x 6"d .. **$69.99**

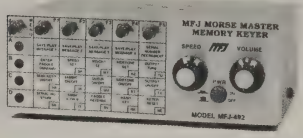
401D Econo Electronic Keyer II Similar to 407D with external speed and volume controls, internal weight and tune controls. Uses 9V battery **$49.99**

434 Contest Voice Keyer™ Microprocessor-controlled, transformer-coupled – No RFI, hum or feedback. Automatically call CQ and send a call. Store frequently used phrases, like *"CQ. Contest this is AA5MT,"* in your own voice. Record and play back five natural sounding messages totaling 75 seconds. Repeat messages continuously and vary the delay from 3–500 seconds. Receive and play back off-the-air signals. Easy to use – plug in an 8-pin microphone cable then plug the 434 shielded cable into the mic input. Controls tailor audio level to match your voice. Built-in speaker and audio amplifier. Uses 9V battery, 9-15VDC or AC with optional adapter. 6.5"w x 2.5"h x 6.5"d **$169.99**

422D Keyer-Paddle Combo Keyer unit installs on top of Bencher iambic paddle. Uses Curtis™ chip. 9 to 50 wpm. Adjustable weight and tone, dot-dash memory and sidetone. Semi-automatic and tune or auto modes. Keys grid block, cathode or solid state. Uses 9V battery or AC adapter. 4.125"x2.625"x5.5"d **$159.99**

422DX Keyer only **$79.99**

490 Keyer/Bencher Paddle Combo A feature-rich keyer in a compact configuration that fits right on its own Bencher iambic paddle. Provides memories, morse trainer, sidetone, automatic serial numbering and more. 5"w x 3"h x 5.5"d. Uses 9-volt battery or 110 VAC with MFJ-1312D..... **$189.99**



492 Menu Driven Memory Keyer No complex sequences. Save messages, enter iambic, semi-auto, handkey, message queue, paddle modes. Select iambic A/B, Morse trainer, store starting serial numbers. Holds 192 characters in 4 memories (expand able to 8K+ characters in 8 memories. Front panel speed (5–100 WPM) and volume control for sidetone speaker. Direct and grid block keying. 9V battery or 110V AC adapter. 6.5" x 2.5" x 6.25" **$89.99**

451 Morse Keyboard Stand-alone CW keyboard with 200 character type-ahead buffer, and two 100 character messages. Requires 12VDC..... **$99.99**

452 Morse Keyboard with 16 character LCD display. Comes with keyboard **$129.99**

495 Millennium CW Keyer A powerful keyer combining the latest microprocessor technology with non-volitile memory. Easy-to-use menus and LCD display – send CW, load messages and set functions using a paddle, keyboard or serial port. Iambic mode works with direct or grid-block outputs. • PTT output, built-in speaker, sidetone • Iambic keyer with dot and dash memories • 32 message memories • Repeat message continuously • Insert timed pauses, auto-incrementing serial number, or embedded commands to change speed, weight, etc. • Message editing capability • Input queue to store multiple messages • Digital and analog linear speed control • Farnsworth method with speed from 10 - 99 wpm • Type-ahead keyboard buffer • Dual user/configuration mode..... **$149.99**

GM Series

FULL RANGE DUAL ELEMENT MICROPHONES

Provides full-range, smooth and articulate audio for AM, FM and "HI-FI" SSB. The wide 60 – 16 kHz frequency response, with a +4 dB midrange peak @ 2 kHz, produces brilliant articulation for clear, understandable SSB audio, and adds a well-balanced robust low end.

In addition, the GM comes equipped with a second **HC-4** or **HC-5** element for *extra punch* when you need it.

The diecast body is finished in high lustre black lacquer and topped with a crushproof golden grill. A "wide-narrow" switch selects the second element, and a "soft touch" microswitch provides smooth, noise free PTT operation. Requires a CC-1 adapter cable.

GM-4 GM with Full Range and HC-4 elements **$140.99**
GM-5 GM with Full Range and HC-5 elements **$140.99**

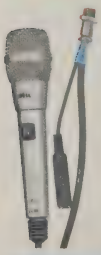
GM-V "Vintage" GM – A built-in matching transformer allows its use with older rigs like Collins, Hallicrafters, Johnson, etc. Uses the Full Range element and switchable Passive EQ circuit or an alternate narrow, more articulate response..... **$155.99**

the CLASSIC 1930s Replica

An exact replica of the RCA 74B broadcast microphone. High quality, all metal construction - no plastic. Dual elements, featuring the new **PROLINE** broadcast dynamic element with a 50-18kHz response, plus your choice of the second communications element, easily switchable from the back panel, along with the 'soft touch' PTT switch. Dual impedance – a small slide switch on the bottom selects 600 or 30k ohms. The stainless steel trimmed cast steel base is removable and the logo can be rotated for inverted mounting on the new PL-2T Heil PROLINE boom. Requires a CC-1 cable. Heil Sound mails your call letters after purchase.

HCL-5 (w/HC-5)... **$229.99** • **HCL-4** (w/HC-4)... **$229.99**
HCL-iC for early ICOM–prePRO.... Special Order **$229.99**

the iCM High Performance Microphone for early *(pre-PRO)* ICOM transceivers



The f.e.t. electret element provides plenty of drive, great sound and plenty of punch for those older ICOMs that lacked enough gain to work well with high quality Heil or other dynamic elements. When using it with the high gain inputs of the new PRO series, simply reduce the microphone gain to acceptable ALC levels.

Beautiful platinum finish, soft touch PTT switch. Has an attached 8-pin ICOM cable with jack for the FS-2 foot switch or HS-1 hand switch. Fits all Heil booms and shock mounts..... **$89.99**

'HERITAGE' Professional Cardiod Dynamic Studio Microphone

HHG A replica of the famous "Elvis" microphone of the 1950's. The finish is a special "showchrome" where the steel body is heavily chrome plated and the finish looks about 6 inches deep. Houses the Heil PROLINE commercial 600Ω balanced output broadcast element (3-pin XLR). Outperforms many $1000 studio microphones ..... Special Order **$165.99**
CB-1 Optional Classic Base (above) **$65.99**

STUDIO-STYLE MICROPHONES

Old favorites upgraded with a new body and PTT switch like the GM series. The **HM-10** comes with your choice of a HC-4 "DX Dream Machine" or HC-5 "Full Range Articulation" element. The **HM-10 Dual** contains both the HC-5 and HC-4 elements (switch selectable), a choice for varying conditions. Both need a CC-1 cable.

HM-10-4 (HC-4) or **HM-10-5** (HC-5)..... each **$65.99**
HM-10-DUAL (HC-4 and HC-5) **$115.99**

HAND MICROPHONES

HMM Dual Element – Heavy duty, commercial quality. Uses a "Full Range Dynamic" element and a switch selectable HC-4 "DX" element. Internal noise cancelling cavity reduces background pick-up. The coiled cable is terminated with an 8-pin plug for KENWOOD or YAESU (specify); not for ICOM radios ..... each **$78.99**

HMM-iC Single Element – Same as HMM, but contains a HEIL "Electret Condenser" element designed specifically for outstanding performance with **ICOM** radios (no HC-4 or switch)..... **$58.99**

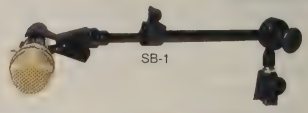
TB-1 Table Base Mount
A heavy, 2 lb. 10 oz. cast steel desk stand. 6" diameter x 1"h with a 4" high chrome 5/8" x 27 microphone mount ... **$25.99**

CB-1 Classic Base
A reproduction of an RCA microphone base. Heavy, 2 lb. 7 oz. lb. cast steel with stainless steel trim. Dim: 4"w x 6-1/2"d x 3/4"h with 3"h 5/8" x 27 thread mount ... **$65.99**

TM-1 Tri-Mount
Mount up to three microphones and attach to 5/8" x 27 thread mounts for convenient multi-rig operation **$14.99**

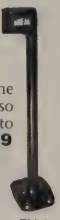
Microphones shown on mounts are not included

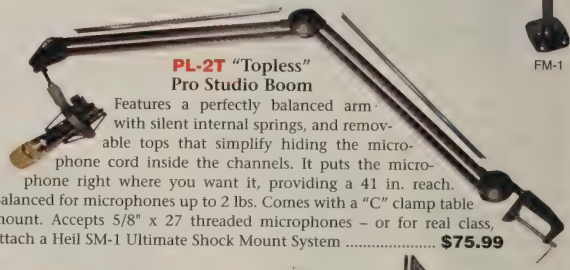
SB-1 Small Microphone Boom
Extends from 10 to 20 inches, with angle adjustments for positioning. Standard 5/8" x 27 thread mic. mount and "C" clamp table mount..... **$33.99**



FM-1 Flange Mount
Mount Heil booms direcly to table top..... **$15.99**

RS-1 Riser
A 12" high flange mount – allows the PL-2T to mount behind the radio so the boom can be brought down into position OVER the radio **$25.99**





PL-2T "Topless" Pro Studio Boom
Features a perfectly balanced arm with silent internal springs, and removable tops that simplify hiding the microphone cord inside the channels. It puts the microphone right where you want it, providing a 41 in. reach. Balanced for microphones up to 2 lbs. Comes with a "C" clamp table mount. Accepts 5/8" x 27 threaded microphones – or for real class, attach a Heil SM-1 Ultimate Shock Mount System **$75.99**

SM-1 The Ultimate Shock Mount System
For GM, HM-10, or "icm" microphones. An 8-point flexible suspension supports and isolates microphones from mechanical vibrations. The 3/8"-27 threads mount to the PL-2T and other standard microphone stands and booms. Great 'studio' look!..... **$50.99**

Microphone not included

ADAPTER CABLES/ SWITCHES ETC.

AD-1 Adapter Cord – For PRO-SETs (specify radio).....**$ 17.99**

AD-100 Microphone/Boomset Adapter – Allows use of all HEIL products with the YAESU FT-100 series. Solves the problem of the multiplexed microphone, touch tone audio and control data appearing on the microphone line.... **$25.99**

CC-1 Adapter Cord – Required for the GM, and HM's. Matches Collins, Drake, Icom, Kenwood, Ten-Tec or Yaesu radios. The 6 ft. cable is wired with a 1/4 in. female jack to accommodate the plug from a FS-2 footswitch or HS-1 pushbutton hand switch. For collins with 3/16" plug – add $3.00.... (Specify radio) ea. **$30.99**

FS-2 Dual Footswitch – Heavy duty and ergonomically correct with the hinge UNDER the heel. Two 10 amp switches activate in sequence for transceiver and amplifier control. Separate control cables with standard phone plug..... **$38.99**

HD-AT Headphone Attenuator/Adapter – Allows 1/4 in. headphone jacks to plug into a 1/8 in. jack. Contains a -6 dB pad which reduces output and allows use of HEIL headsets with FT-100 or IC-706 without overload and distortion..... **$5.99**

HS-1 Pushbutton Handswitch – Plugs into CC-1 jack for PTT control of your radio. A 6 ft. cable terminates into a 1/4 in. phone plug..... **$25.99**

XT-1 Matching Transformer – A sub-miniature unit that matches Low–Z microphones to High–Z inputs used in older Collins, Drake, Hallicrafters, etc..... **$15.99**

Headsets/Boom Microphones

The Heil QUIET PHONE series is a result of years of research and development at Heil Sound. Normal headsets are designed to reproduce audio and pay little attention to the outside environment. In most cases, the surrounding background noise is louder than the audio that you are trying to hear in the headset.

Heil Sound applies a unique active Noise Canceling Technology using two small out-of-phase microphones and a differential amplifier inside the headphones. They pick up the outside ambient noise as well as the audio information. Using the phase information the differential amplifier reduces sounds under 400 Hz up to 70%. The result is a dramatic reduction of ambient noise as well as noise from blowers, jet engines, the TV in the next room and other operators in the shack.

PRO-SET QUIET PHONE

The Heil **PRO-SET** needs no introduction. It's a lightweight headset/boom microphone with a flexible boom and a choice of microphone elements. It has become the defacto standard for leading DX and contest operators worldwide but now, the PRO-SET is available with the exclusive Heil 'QUIET PHONE' Active Noise Canceling Technology. It's the first and only headphone to bring you active noise cancellation as well as a second Heil exclusive – switchable Speaker Phase Reversal that changes the audio from being heard 'centered' in your head, to a spatially widened effect. This feature greatly reduces listening fatigue and in some conditions can reduce noise and enhance intelligibility. This has never been done before and you now have it all in the new Heil PRO-SET QUIET PHONE. The in-line battery box contains the phase cancellation and phase reversal components and a PTT control button. All PRO-SETS require an AD-1 adapter cable (specify radio).

PSQP-4 with Heil HC-4 "DX" element **$199.99**
PSQP-5 with Heil HC-5 "Full Range" element **$199.99**
PSQP-IC with Heil 'ic' Electret element and cable for Icom only **$216.99**

Original PRO-SETS without QUIET PHONE feature

PRO-SET 4 with Heil HC-4 "DX" element and Phase Reversal Switch **$130.99**
PRO-SET 5 with Heil HC-5 "Full Range" element and Phase Reversal Switch **$130.99**
PRO-SET- IC with Heil 'ic' Electret element and Phase Reversal. For Icom only, cable included... **$147.99**

PRO-SET-PLUS Headset/Boom Microphone Maximum comfort and noise seal is provided by full cover leatherette earpads with removable cotton covers. The cushioned inner headband is self-adjusting for a perfect fit, and the boom swings 180° for left or right side operation. Includes switchable, dual microphone elements; the Heil HC-5 for normal operation, the HC-4 for DX. The boom and top headband have rugged but flexible internal steel bands that can be adjusted as you wish. Great sound from frequency tailored speakers mounted in tuned cavities, and a phase reversal switch changes the sound field from being "centered" in your head, to a spatially widened effect. This feature greatly reduces listening fatigue and can reduce noise and enhance intelligibility. Requires AD-1 adapter cord (specify radio). **$189.99**
PRO-SET-PLUS-IC same, but for Icom radios. Includes AD-1ic adaper cord **$206.99**

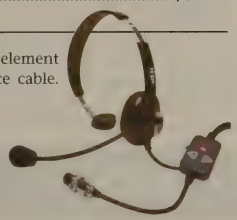
BM-10 Series Headset/Boom Microphones – A lightweight, soft and comfortable boomset for prolonged use in contests, etc. The boom microphone is available with the Heil HC-5 "Full Range" or HC-4 "DX"element. The cord is wired with 1/4" stereo plug and 1/8" transmit audio plug and requires an AD-1 adapter cord (specify radio)
BM-10-4 with the HC-4 element..... **$89.99**
BM-10-5 with the HC-5 element..... **$89.99**
BM-10-iC Has an FET Electret element for Icom radios, includes adapter cable..... **$106.99**
BM-5 Series Same as the BM-10 but with a Single Headphone. Great for mobile!
BM-5-4 with Heil HC-4 "DX" element..... **$69.99**
BM-5-5 with HC-5 "Full Range" element..... **$69.99**
BM-5-iC with HC-5 "Full Range" element, designed for Icom radios..... **$86.99**

TRAVELLER

Single-side Headset/Boom Microphone – Uses a high performance electret element and features Up/Down and PTT in-line switches. Includes a 3 ft. interface cable. Lightweight and comfortable, usable with left or right boom position.

Traveler-K for 8-pin KENWOOD
Traveler-KM for modular KENWOOD
Traveler-706 for the IC-706
Traveler-8PIC for 8-pin ICOM
Traveler-YM for the modular YAESU

$89.99 each



New Larger & Softer Earpads!

QUIET PHONE

Active Noise Canceling Headset

- Incorporates Heil 'QUIETPHONE' Technology
- Soft Leatherette cushions with adjustable headband to insure most comfortable listening for extended periods of time.
- Operates on a single "AA" cell for 30 hours providing clean high fidelity dual channel audio.
- Right angle 1/8 in. plug works with most CD or MP-3 players and angle allows plugging into the audio jack located in the arm rest of commercial airliners. A 1/4 in. stereo adapter is included for use with your ham equipment.
- Folds flat for EZ carrying.

HQP
$99.99

HEIL PROLINE Affordable Performance

PROLINE – designed for commercial broadcast, studio recording and concert sound. A smooth, wide range response is provided by the PROLINE element which uses a powerful magnet structure of Neodynium, Iron and Boron with a 1-1/8" aluminum alloy, low mass voice coil assembly and combined with a balanced 600 ohm output.

HHG HERITAGE PRO

- The 'Elvis' microphone of the 50's
- Deep 'showchrome' finish
- shown with optional desk stand

Special Order – **$168.99**

PR-20 PROLINE

- The most natural and cleanest sounding audio – outperforms $1,000 mics.

Special Order – **$168.99**

HCLP CLASSIC PRO

- Replica of a 1930's RCA model
- Base can be removed allowing inverted mounting on a Heil PT-2T studio boom

Special Order – **$269.99**

KOSS

QZ/5 Passive Noise Reduction *(right)* Isolates listener from noise sources like car and jet engines. Ideal for the race track and metal detection! Unique head-strap, velcro design allows for secure fit and immobilization. 60Ω impedance • 102dB SPL/1mW sensitivity • 40-20,000Hz sensitivity • Volume control and stereo/mono switch • Single entry, 8' coiled cord, 3.5mm plug • 15 oz..... **$49.99**

QZ/50 Revolutionary Active Noise Reduction *(left)* Reduces harmful and annoying low frequency sounds in noisy environments. Behind-the-head design provides comfort during extended wearing. Dynamic element, 30-20,000Hz • 32Ω impedance • 98dB sensitivity • Single entry 8' cord, 3.5mm plug • Requires AAA battery • 2.5 oz..... **$49.99**

QZ/99 Passive Noise Reduction Stereophone with Mono/Stereo Switch Frequency response: 40-20,000Hz • Coiled, single entry, 8' cord with 3.5mm/6.4 mm plug • Sensitivity: 102dB SPL/1mW • Impedance: 60 Ω • 15 oz..... **$59.99**

QZ/2000 Noise Reduction Stereophone Revolutionary Active Noise Reduction reduces harmful/annoying low frequencies • >15dB SPL from 40-200Hz; average 10dB SPL from 30-1000Hz • 15-20,000Hz response • Straight, dual entry, 4' cord • Compact control case and collapsible stereophone • Adjustable headband • Input jack for audio play-through and 2-prong adapter for in-flight use • 101 dB SPL/1mW sensitivity • 5kΩ impedance • Includes 2 AA's • 2.3 oz..... **$149.99**

KTX/8 Portable Stereophone Dynamic element for extended frequency response from 40-20,000 Hz • Foam ear cushions for open, hear-through sound • Volume control on the cord for easy level adjustment • Collapsible headband design for protective storage and maximum portability • Reliable "L" plug for improved durability and reliability • Straight, single entry 4' cord **$14.99**

Y-88 "Y" Cord Delivers dual stereophone connection from a single sound source. Reliable "L" plug for improved reliability and durability..... **$4.99**

PREMIER communications

SPM-100 Small Speaker/Mic This is a lightweight, compact unit. The microphone features a high-quality condenser-style mic element and high-fidelity audio circuit that produces excellent transmitted audio clarity, as well as a powerful speaker. It may be secured to the user's lapel or shoulder..... **$27.99**

SPM-400A Mini Boom Mics The SPM-400A headsets include an in-the-ear speaker and a rubber-covered earloop design that adjusts to comfortably fit either the right or left ear of any user. The unit features an in-line Push-To-Talk switch that can be clipped to the user's lapel or belt **$37.99**

See the Price Guide to find correct model numbers for your specific brand of radio.

YAESU

Choice of the World's top DX'ers℠

MD-200A8X Ultra-High Fidelity Desktop Microphone Designed for use with the MARK V. Employs a studio-quality, wide range (30-17000Hz) dynamic element optimized for high fidelity SSB. Exclusive Variable Side Pressure Control allows adjustment of overall frequency response from natural, high-fidelity sound of everyday S-9+ rag chewing, to high-articulation with a moderate peak above 1500Hz for DX or contests. • Aluminum die-cast base with locking and momentary PTT switches • Up/down scanning switches • Housing can accommodate favorite DX or contest mic element • Also works with FT-847, 857, 897, 920, 1000MP, FIELD, also 1000/1000D without "TX" LED • Includes dual-connector cable with regular & modular plugs • 4.7"w x 12.6"h x 4.9"d, 2.2 lbs **$379.99**

KENWOOD

HS-5 Deluxe Headphones Specifically designed for use with communication systems. Provide natural sound and eliminate pressure, permiting long hours of fatigue free listening. To increase the volume level, when you are using the headphones in a noisy room or want privacy; replace the ear-pads with the vinyl leather, pressure fit ones, increasing the sound pressure by about 10dB while sealing out noise. (both pads included). Includes 6 feet connecting cord with plug. • 8Ω impedance • 200mW @ 1000Hz max. input • 150-4000Hz (-6dB) frequency response • Approx. 350g..... **$79.99**

HF-24RS Scanner Headphones Designed specifically for racing fans. • Listen to driver/pit conversations with reduced noise • Snug fit, cushioned headband and comfort fit cushions allow hearing action over crowd and engine noise • Dual volume control to maximize hearing levels • Includes 3.5mm, premium-gold, right-angle plug with a 10' coiled cord **$19.99**

HEADSET MICS

288 Deluxe Headset Microphone *(left)* Lightweight, comfortable for Yaesu, Icom, Kenwood units. Superb transmit audio, and earphone tonal quality. Foam covered microphone element is attached to headset with a flexible rubber boom allowing proper positioning. PTT switch attached to 6' cord, hold or attach to clothing..... ea. **$24.99**

292Y Featherweight™ Earphone/Mic *(right)* Has an earbud earphone and a tiny thumb-sized microphone/PTT switch that's built right into the 4 ft. cord. Works with Icom Q7A, Yaesu FT-10R, FT-40R, FT-50R and VX series transceivers **$17.99**

MICROPHONES

297 Desk Mic *(left)* A sensitive condenser mic element coupled with a low-noise amplifier. Speech tailored - select *SSB Mode* for smooth, articulate DX or *Full-range Mode* for clear FM or AM. Flexible microphone boom, momentary and locking PTT switch. On-the-Air LED indicator, frequency up/down switch. • 4"w x 1.25"h x 6"d base • Requires 2 AA's..... **$69.99**

5397 8-Pin Adapters for 297 Available for Yaesu, Icom and Kenwood units ..... ea. **$15.99**

295 Mini Speaker Mic *(right)* For popular Yaesu, Icom and Kenwood handhelds. Uses a non-directional electret element. Transmit LED.. ea. **$15.99**

HEADPHONES

392B Perfect for amateur and shortwave listening. Superb padded headband/ear cushion design, only 8 oz. High-performance drivers with full 100Hz-24,000Hz response provide enhanced sound & speech fidelity. Earphones have individual volume and tone controls. Gold-plated plug, 9' cord and 1/4" adapter (mono/stereo) included **$19.99**

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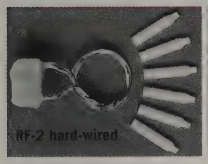
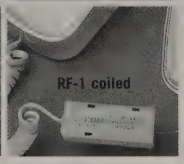
K-COM





TELEPHONE RF INTERFERENCE FILTERS

Cure telephone RF interference in the most irritating cases even when dealing with transmitters with full legal power output. Use any number of filters with no adverse effect on telephone performance.

RF-1 For single line equipment including wired or cordless phones, answering/fax machines, modems, etc. Uses standard modular connectors **$16.99**

RF-1/2-LINE For 2-line or multi-line, multi-station electronic key phone systems..... **$22.99**

RF-1/COILED For use when RFI enters thru coiled telephone cord between base and handset **$22.99**

RF-2 Hard-wired, provides a wide range of installations optional to add RFI rejection at a variety of physical/electrical locations in the system; inside jacks, behind wall mounts, etc..... **$10.99**

VECTRONICS®

LP-30 *(right)* **Low Pass Filter** Suppress TV interference from HF transmitters. Use between transmitter and antenna or tuner. Up to –70dB attenuation of harmonics falling in TV bands. For 52Ω, up to 30MHz and 1500W RF continuous power. **$69.99**

LP-2500 Rated for 2.5KW continuous.. **$129.99**

HPF-1 *(left)* **High Pass Filter** Install at TV antenna terminals. Stops interference caused by overload or harmonics from HF transmitters operating below 30MHz. High harmonic attenuation but low loss in the 52-550MHz TV passband. For 300Ω (balun and Type-F connector supplied for 75Ω)..... **$24.99**

High Pass Filters Stop TV, FM and VCR interference caused by harmonics or overload. Installs at TV or VCR antenna terminals or connector. Sharp frequency cutoff at 52MHz with 70dB attenuation below 50MHz.

HP-300T (300Ω) or **HP-75T** (75Ω).....ea. **$12.99**

DCI DIGITAL COMMUNICATIONS

BANDPASS FILTERS

Install between a 2m, 220 or 440MHz rig and antenna to reduce strength of out-of-band interfering signals while allowing wanted signals to pass through at full strength. Eliminate squeals, squawks, beeps and strange voices from a UHF or VHF radio caused by intermodulation from strong, nearby pagers, police radio, etc. Effectively reduces spurious emissions on transmit. Hear desired signals even in crowded, urban centers • Design: 2M/220MHz – 4 helical resonators; 440MHz – four 1/4-wave linear resonators; both with aperture coupling • VSWR 1.5:1 • 200W rating • Made of extruded aluminum, copper and brass • 12w"x 3"h x 5"d • 2 lb, 11oz

146-4H 144–148; Loss <1 dB; Selectivity: –57dB @ 136MHz and –43dB @ 156MHz. SO-239 silver-teflon connectors..... **$99.99**

146/444DB 144–148/438–450MHz; Selectivity: –50dB @ 136MHz, –40dB @ 156MHz, –30dB @ 425MHz, –25dB @ 465MHz. SO-239 silver-teflon connectors..... **$169.99**

145-2H 144 to 146MHz **$99.99**

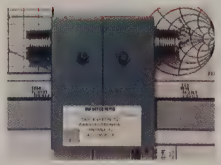
223.5-3H 222 to 225MHz; Loss 1 dB; Selectivity: –33dB @ 233 3MHz and –28dB @ 233 MHz. SO-239 silver-telfon connectors..... **$109.99**

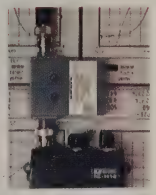
445-10C 440-450MHz; Typical selectivity: –47dB @ 425MHz, –50dB @ 456MHz; Loss 1dB. Type-N silver-teflon-gold connectors..... **$119.99**

435-10C 430 to 440MHz..... **$119.99**

Upgrade to type-N connectors on 2m and 220MHz models – add $10 to price; Special Order

PAR ELECTRONICS





INTERMOD FILTERS

Solve most intermod or front end overload problems from paging systems, etc. with these asymmetrical, 45-54dB notch filters. Centered on the offending pager spectrum of 152-153MHz, they work effe-ctively with a loss of ≤0.5dB and a 1.25:1 VSWR. Works with dualbanders by providing a low-loss pass-thru of 70cm signals.

VHFDN152 2m base/mobile intermod filter, rated 50W, SO-239 connectors, 2"h x 1"d x 2½"w **$69.99**

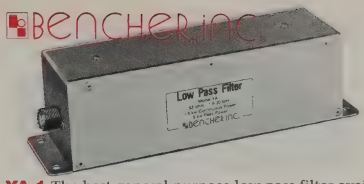
VHFTN152-158 **Triple Cavity** Similar to the VHFDN152 except it places a second notch in the 158MHz pager band in addition to the dual notch in the 152 MHz band. 2½"h x1"d x 3"w **$82.99**

VHFDN152HT 2m intermod filter for handhelds BNC connectors, 20W. 1½"h x ¾"d x 2"w .. **$68.99**

UHFDN450 UHF intermod filter for base or mobile. Blocks pagers & two-way transmitters that cause 70cm intermod; transparent to 2m.. **$69.99**

UHF-12 12" Belden RG-58/U jumper cable with silver/gold/teflon PL-259's on each end **$9.99**

BENCHER INC.



YA-1 The best general purpose low pass filter available. Check the specs at www.bencher.com! 1kW, 80db attenuation @ 50MHz..... **$85.99**

MFJ ENTERPRISES, INC.

704 **50Ω Low Pass Filter** Install between HF transmitter and antenna to reduces TVI from harmonics that fall in the TV band. Handles 1kW from 1.8 to 30MHz **$49.99**

711 **75Ω High Pass Filter** Install at TV/VCR antenna input to reduce/eliminate interference from HF transmitters operating up to 30MHz.. C/O **$19.99**

784B **Super DSP Filter** Eliminates those hetrodynes; reduces noise and interference on SSB/CW/AM, digital modes, VHF, EME, satellite. Tunable FIR filters minimize ring, prevent data errors. Up to 60dB attenuation. Tunable Spotting Tone™ auto tunes CW filter in narrowest bandwidth. 2W audio amp with AGC. 12V DC or 110VAC with MFJ-1315. 2.5"h x 9"w x 6"d..... **$229.99**

701 **RFI Free Choke Kit** Eliminate common RFI problems by winding offending cables around an RFI suppressing toroid. Effective from 0.5-200MHz. Separates into halves for easy winding of all types of cable: computer ribbon, TV coax, power cord, telephone wire, audio-video cables. Halves mount in snap-together plastic frame. For severe RFI problems and larger cables, multiples can be stacked for more effect. (Pack of 4 toroids)..... **$14.99**

HI-Q Common-Mode™ Filters For tough RFI problems. Lowpass filters eliminate harmonic-type interference but are not capable of filtering out "Common-Mode" (differential noise energy transfer between transmitter and ground including stray capacitance). For cleaner signals, add an RF Inquiry filter. • 1.8–70MHz • -50 to -60db below 250MHz common mode attenuation • Insertion loss: less than 0.1dB • 50Ω impedance • Connectors: SO-239 teflon

CF250E-UHF 250W, .98 x 10 in. 0.5 lb . **$89.99**

CF5KV-UHF 5kW, 2.1 x 12.6 in., 1.3 lb **$124.99**

TIMEWAVE TECHNOLOGY INC

DSP-599ZX Noise Filter Digital Signal Processing provides superior reduction of QRM and QRN • Incorporates the newest high speed CPU that gives unparalleled features and is field upgradeable • Exact filter settings seen through the LCD, push buttons, and "Visible Memory" • Optical encoders for continuous tuning of filters • Examines and measures signal and noise correlation, dynamically filtering out undesired noise • Data and bandpass filters with steep skirts and linear phase response for CW and RTTY • Bandwidths range from 10Hz-600 Hz, and center frequencies from 200-2150Hz • Wider filters allow easy tuning and listening to multiple CW signals simultaneously • Supported data filters are RTTY (two methods of use), AMTOR, PacTOR, G-TOR™, HF Packet, SSTV, WeFAX, SITOR and CLOVER • Test instrument mode provides audio sine wave generator, audio millivoltmeter and two-tone audio generator for maintenance/set-up of audio circuits in radios • VHF/UHF weak signal and aurora provides remarkable improvement in clarity • Improves readability of distorted aurora SSB signals **$436.99**

ANC-4 Antenna Noise Canceller And Diversity Combiner Works with any transceiver (250W or less) or receiver for voice, data and CW from 500kHz–80MHz. Reduces or eliminates locally-generated power line, computer and TV noise. It cancels noise before it affects AGC circuits. Frequently, reception of signals well below noise level is possible. Connects between antenna and connector. A second antenna acts as a noise pickup. Front panel controls allow adjustment of signal phase and magnitude. The ANC-4 also operates as an active antenna using a noise antenna and noise gain control to amplify antenna output. And, it can be used as a diversity combiner to pick up weak signals or null interfering signals. Requires 11–16V DC @ 300 ma. 1.7"h x 6"w x 4.3"d, 2 lbs..... **$209.99**

MFJ ENTERPRISES, INC.

1270C TAPR TNC-2 Clone Interfaces computer with RS-232 serial port and terminal program for VHF/UHF, OSCAR and non-FM packet. Switchable HF/VHF modems. EasyMail™ personal mailbox, WeFAX. KISS interface for TCP/IP, 256K EPROM and 32K RAM. AX.25/Level 2-V2 software. Comes with interface cable, serial port connector and AC adapter. 12 VDC. 9.5" x 7.5" x 1.5"..... **$159.99**

1278B Multi-mode Data Controller 10 modes: PACTOR, 16-level FAX, color, SSTV, PACKET, AMTOR, RTTY, ASCII, CW Navtex & memory keyer. Enhanced mailbox • 32K RAM • 16-gray level modem • 20 LED tune indicator • MARS mode • Internal modem header • 10 program message buffers • Dual radio ports • KISS interface • Host mode • Threshold control • RS-232/TTL ports • 12 VDC • 9.5"w x 9.5"d x 1.5"h..... **$279.99**

1278B/DSP The 1278B w/DSP filter.... **$359.99**

1272 TNC Switch Pushbutton selection for voice or digital. You specify the radio and TNC connection. Multiple models available .....(ea.) **$39.99**

1273B Sound Card Interface A basic plug-and-play interface for the digital modes. Has jacks for sound card, radio, speaker and RS-232 (no mic jack or switch). Includes RS-232, audio and mic cables and software. No external power needed. **1273B** for 8-pin round mic plug, **1273BM** for 8-pin modular (RJ-45) mic plug..... ea.**$59.99**

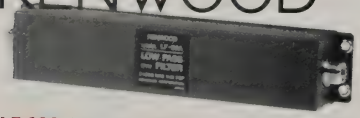
8621 2M Packet Data Radio High performance thru 9600 baud. Plug in TNC cable, your antenna and power – you're ready for packet. Crystal control on 145.01MHz, 5W output. Requires 12 VDC @ 1A. 5"w x 5.5"d x 1.5"h **$139.99**

8621X2 Dedicated VHF Data Radio for APRS Automatic Packet Reporting System transceiver. Ready to go on 144.39MHz **$149.99**

1275/1275M Sound Card-to-Rig Interface Connect between a transceiver and computer and enjoy all digital modes without additional equipment. Operate PSK-31, packet, APRS, AMTOR, RTTY, SSTV, CW, HSCW meteor scatter, contest voice keying, contest memory keyer, etc. Internal jumpers program mic wiring for any radio. Includes audio cables, power plug and a CD with a collection of the most popular amateur radio software to operate the digital modes. Requires 12VDC (110 VAC with optional adapter). **1275** for 8-pin round mic plug or **1275M** for 8-pin modular (RJ-45) .. ea. **$99.99**

1279 Super Sound Card Interface This super sound card interface has all of the features of the MFJ-1275 plus • Auxiliary input jack, allows switching of a sound card from the 1279 to something else. No more plugging and unplugging! • Direct CW/FSK keying jack, allows direct CW or FSK keying operation • Headphone jack, use stereo headphones, also turns off external speaker • Footswitch, use a footswitch or other for PTT (push-to-talk) when not using VOX • Plug and Play, includes software, RS-232 and audio cables, AC power supply • **1279** for 8-pin round mic plug, **1279M** for 8-pin modular (RJ-45) mic plug..... ea.**$129.99**

KENWOOD



LF-30A Low-Pass Filter Suppresses harmonics contained in RF signals from HF transmitters, reduces possibility of TVI/BCI. 30MHz cutoff for 160-10M operation. Attenuation: >90dB @ 90-300 MHz. Insertion loss: < 0.5dB @ 30MHz. 50Ω, rated 1 KW PEP. 9.6"w x 2"h x 1.5"d, 1.2 lbs..... **$64.99**

Palomar Engineers

RFI-4 RF Interference Kit A selection of Ferrite Toroids and Beads to eliminate RFI from 1 to 1000 MHz. Contains: 12 beads with 0.2" holes for small wires and cables, 4 toroid (donut shaped) cores with 1/2" holes, 4 with 3/4" holes and 4 split beads (toroids cut in half so you can put them over cables without disconnecting them). Two of them fit over RG-58 (1/4" hole) and two fit over RG-8 (1/2" hole). Includes a RFI Tip Sheet that explains the use of ferrites in detail and tells how to use them to keep RF out of computers, stereos, VCRs, alarm systems, and telephones..... **$25.99**

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RIGblaster

The easiest way to connect a radio to a PC to operate old or new, analog and digital modes. Over 100 ham radio programs transmit and receive over 20 different modes. Your radio, a RIGblaster, PC, and appropriate software take the place of old expensive adapters, TNC's, digital voice keyers, microphone equalizers, rig control interfaces, DSP receive filters, internet linking interfaces, automatic beacon clocks and more. Use the processing power built in to your PC instead of a old fashioned outboard box that only does a few things. All RIGblasters are fully ground isolated, come with an a up to date CD collection of ham radio operating software, all the cables and power supply you need to get on the air. Five models to choose from for your operating needs. Use with any modern computer and radio with a matching mic connector.

RB/PR/C RIGblaster Pro The only complete computer interface! Allows you to use all sound card software, computer control a radio, equalize and record a microphone, operate keyboard FSK and CW and more. Built in rig control interface for most radios. Single serial port rig control and sound card operation. Separate CW and FSK keying outputs. Transmit audio muting. Two mic. switchover. For the ham that wishes to do everything that can be done with computer and a radio. 8-pin and RJ45 radios as supplied..... **$249.99**

RB/PL/C RIGblaster PLUS Run all sound card modes with fully automatic operation with your mic. No manual switching, no plugging or unplugging. Works with all transmit and receive sound card software. CW or FSK direct keying output. 8-pin and RJ45 radios as supplied..... **$139.99**

RB/M8/C RIGblaster M8 Run all sound card modes with fully automatic operation using your mic. No manual switching, plugging or unplugging. Works with all transmit and receive sound card software. 8-pin and RJ45 radios as supplied.. **$109.99**

RB/NO/8C RIGblaster Nomic 8-pin Small and inexpensive. Perfect for portable or temporary setups. No power supply needed. Perfect for an Internet remote link. Unplug your mic. whenever you wish to use sound card software. 8-pin radios as supplied..... **$59.99**

RB/NO/RJC RJ-45 Nomic RIGblaster Same as above with RJ45 connector **$59.99**

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Kantronics

MULTI-MODE DATA CONTROLLERS

KPC-3 Plus/128 1200 bps • Packet, GPS/APRS, Host, KISS and WEFAX modes, use with EMWIN • Personal Mailbox (PBS) now supports multiple calls • Remote access, sensing and control with two A/D and two control lines • PBS 100k, expandable with optional 512k RAM..... **$186.99**

9612 Plus/128 1200 port and second port of 4800–38,400 bps • Most modes/capabilities of the KPC-3 Plus and POCSAG (paging) • Unique design allows the addition of another port, high or low speed • Remote access, sensing and control capability • Telemetry transmission capability... **$349.99**

KAM 98 Single port multimode TNC for HF and VHF use • Packet, GPS/APRS, Host, KISS, WEFAX, CW, RTTY, AMTOR, PACTOR, G-TOR®, Free signal detection for HF email, A/D inputs/TTL outputs • HC11 for more processing power to accommodate future upgrades • Wider range of speeds; use 1200 bps packet on 10 meters **$399.99**

KAM XL Multi-Mode DSP Controller Kantronics third generation multimode TNC, a state-of-the-art design giving operations on HF, VHF, and UHF, while supporting DSP modems and popular new modes of operation • Packet 300/1200bps • G-TOR • Pactor I • AMTOR ARQ (FEC, SELFEC, CCIR 476 and 625) • PSK31 • RTTY • NAVTEX/AMTEX • ASCII • WEFAX • CW • Dual-port mailbox • Remote SYSOP access • GPS NMEA-0183 compatible • Kantronics Host Mode • KISS..... **$399.99**

HAL COMMUNICATIONS CORP.

RTTY-1 Tuning Indicator EZ to use, very accurate. works with any FSK radio modem. Crossed LED bars show correct tuning for FSK modes including Baudot Teletype (RTTY), ASCII Teletype, AMTOR, SITOR, P-Mode, HF Packet. Filters: 2125 Hz (Mark), 2295 Hz (Space) 5.5"w x 3.75"h x 1.25"d, 0.5 lb. Requires +9V-18V DC @ 160 ma **$99.99**

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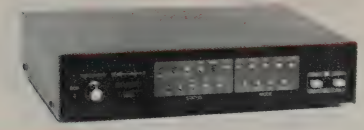
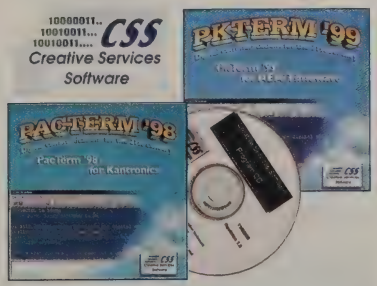
TIMEWAVE
TECHNOLOGY INC.



PK-232/PSK Multimode Data Controller The most popular data controller ever built, now with a sound card interface. Offering a new level of performance with accurate Digital Signal Processing filters for internal data modes and dual transformer isolation for sound card data modes. • 18 DSP filters, twin peak RTTY filters, 100HZ CW filter and adaptive PacTOR filters. Weak signals magically appear through noise and interference bounces off the filters for cleaner copy than old analog filters. Supports new sound card modes in addition to existing PK-232 modes. Comes with a complete cable and connector set, in addition to Timewave's on-line and telephone support. Requires 11-16V DC @ 800 ma. 8.25"d x 2.5"h, 3 lbs..... **$531.99**

PK-96/100K 9600/1200 packet TNC 9600 and 1200bps packet-ready • GPS firmware standard • Remotely program • GPS commands • Standalone tracking hardware HDLC for accuracy • True DCD to hear weak signals • Gateway as a node • Full MailDrop facility • PC PackRatt Lite™ terminal control and APRS™ software included • AEA host mode • Advanced command set • Identify TCP/IP, TheNet and NetRom • Separate external TX for 9600/1200bps adjustments • External reset • Windows™ and MacIntosh™ programs available • Requires 12V DC • 6.25"w x 7.5"d x 1.375"h, 1.25 lbs. 128K RAM **$219.99**

AC-5 120V Power Supply Provides 13.8VDC @ 1.7A for the DSP-599zx, PK-232/DSP, DSP-2232, DSP-1232. DSP-232, PK-900 or other low consumption accessory. Desktop, has 6 ft. long input and output cords so the unit does not take up any wall socket or power strip space..... **$24.99**



Host terminal Software – Takes advantage of true multitasking capabilities of Windows 95, 98, ME, NT and 2000. Release 1.5 with PSK-31 support.

PacTerm 98 For Kantronics™ TNCs **$79.99**
PK-Term 99 For Timewave and AEA (PK-12/96/232) TNCs. Support for PK-232/PSK..... **$79.99**

MFJ ENTERPRISES, INC.

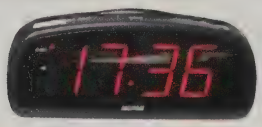
105C 24 Hour Quartz Wall Clock Black, 10" diameter face, sweep second hand. Uses one "AA" battery..... **$19.99**

Small 24-Hour Clocks A dual clock with separate UTC and local time display modules, and a single clock with 24 hour time only. Heavy brushed aluminum frame, 5/8" high LCD numerals, sloped face. Flashing seconds colon, battery included.

107B *(left)* **Single**, 2.25"w x 1"h x 2"d..... **$9.99**

108B *(right)* **Dual**, 4.25"w x 1"h x 2"d..... **$19.99**

112B DX'ers World Map Clock Shows time at any QTH througout the world on an attractive LCD world map. Also shows day, month, date and year. Choose 12 or 24 hour. Daylight saving time feature. Grey, cool bile backlight for night viewing 4.25"w x 3.3"h x 2.25"d..... **$24.99**



113 12/24 Hour Desk Clock Switchable 12/24 hour display • 9-minute ID timer • Alarm function • 9V battery back-up for power failures • 110 VAC, 60Hz • 9"w x 4"h x 2.5"d..... **$19.99**

115 WORLD Map 24 hour Quartz Wall Clock Set it to GMT and you'll know what time it is in designated areas of the world any time of day. Premier cities outline the trim of the 12" diameter. Operates on "AA" battery (not included) .. **$24.99**

116DC 12 VDC, 12 **Hour LCD Travel Alarm Clock** Great for motor homes and truckers! Green 5/8" LED digits show 12 hour time format. Ten minute ID buzz, two-level alarm (100dB - high) low/high @ 110dB) 9V back-up battery. Power cord with cigarette lighter adapter attached. Compact, 4.5"w x 2"h x 4"d, 17 oz. Closeout **$9.99**

118 Jumbo LCD™ 24 or 12-hour clock 1.25" high with high contrast LCD. Shows year, month, date and day in four different languages. Includes 100 year calender and flip stand. Uses one "AAA" batt. (not incl.). 5.75"h x 3.375"w x 0.5"d **$24.99**

123 Eternity Atomic Clock™ Solar powered and automatic time set by radio signals received from WWVB. Large (6.75"w x 2"h) LCD display, selectable 12/24 hour time format, digital calender. Ordinary room light powers the solar cells and also replenishes a built-in rechargable battery; also uses (2) "AAA" batteries (not included) for back-up power. Metallic tan, 9"w x 3.5"h.. **$79.99**

125 DXer's Dream 24-hour Quartz Wall Clock 12" diameter face shows 24 hour format with smaller day, date and 12 hour indicators. All dials set independently as desired. Uses a single "AA" battery (not included)..... **$29.99**

Benjamin Michael Industries INC.

973A Battery operated 24-hour quartz controlled clock with sweep-second hand. 12" dial allows excellent visability. Black textured case and glass crystal. Uses AA battery (not incl.). 14" dia. x 1.75"d.. **$49.99**

972AD 14" dia., 12/24 hr. wall clock, sweep-second hand. Uses "AA" battery (not included).... **$27.99**

We accept I.M.P.A.C.® Government Credit Cards

CSI® CONNECT SYSTEMS INC.

INTERCONNECTS

Fully automatic interface between an FM base radio and phone line to initiate and receive phone calls on a mobile or HT. Each contains powerful, microprocessor-controlled features such as 90 memory speed dialer, redial, built-in programming keyboard and digital readout, remote base mode, regenerated tone or pulse dialout, CW ID and toll restrict.

CS-800 Full Duplex Interconnect Operates full or semi-duplex and also has a built-in repeater controller. Simply connects to transceiver mic and speaker jacks. FCC and DOC approved. 12-15 VDC. 7.875"w x 7.5"d x 2"h, 2.5 lbs..... **$369.99**

CS-900 Control Station Simplex Interconnect For use with any simplex transceiver. Also use thru remotely located repeaters (from base) for added range. Digital voice delay standard. Connects to mic and speaker jacks of simplex transceiver. FCC and DOC approved. Looks like CS-800. (Transceiver switching speed does not affect performance) 12-15VDC 7.9"w x 7.5"d x 2"h, 2.5 lbs..... **$369.99**

GEOCHRON ENTERPRISES INC.

STD BLK/GOLD or **STD OAK/GOLD** A framed, lighted world map which is a continuous belt of mylar film in constant motion synchronized with Earth's orbit. Displays current time world-wide, sunrise/set, and current season everywhere via an illuminated pattern • Allows for calculation of time in non-standard zones • Shortwave radio prefixes • Standard model in black or oak with gold trim • 3' x 2', wall mounting ... **Drop Shipped $999.99**

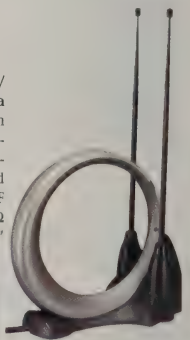
Available by Special Order in numerous trims/finishes, and in 3 other models (with analog 0-60 min. scale).

RCA

CLOCK

RP-3710 Dual Wake Digital Tuning AM/FM Clock Radio Two independent "wake time" readouts – display indicates both time settings • Graduwake™ ramp-up alarm • Snooze • Large, backlit LCD wih brightness control • 11 presets – mix AM/FM stations plus your choice of 1 preset wake station. Sleep to one station, wake up to another • 9V back-up battery (not included) holds time and alarm settings in memory for 8 hours • Operates on 2 AAs, included • 5.25"w x 4"h x 3.75"d..... **$24.99**

AUDIO/VIDEO



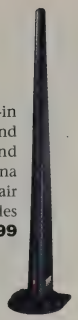
ANT-1020 VHF/UHF/FM Indoor TV Antenna Contemporary design with no-scuff pad to protect cabinet tops. • 39-inch retractable and adjustable dipoles • UHF loop • Integrated 75Ω hook-up cable with "F" connector..... **$19.99**

TA-25 Eagle Aspen™ TV Distribution Amplifier Excellent for home and small MATV systems! UHF, VHF, FM • 54-890MHz • Low noise, typ. 6-7dB • 25dB gain • Switchable FM trap • Lightning protection • 6"w x 3"h x 1.75"d • 117 VAC, 4.5W **$19.99**

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aeshom.com

TERK

STEREO ANTENNAS



TOWER **AM-FM Tower Antenna** Built-in amplifier with gain contol improves AM and FM reception. Works with tuners and receivers with 75Ω or 300Ω FM antenna inputs. The AM connection consists of a pair of wires with U-clips. Useful 30-40 miles from broadcast transmitter..... **$24.99**

ADVANTAGE **External AM Antenna** Passive, adjustable 530-1600kHz AM antenna that improves reception over built-in loops. Used unattached, next to the radio. Position for best reception, then rotate tuning dial located at the center of the antenna to match the AM frequency tuned in on the radio. For best performance, connect directly to an external AM antenna input..... **$49.99**

PI-B **Powered Indoor AM/FM Antenna** Improves FM (88-108MHz) performance by eliminating multipath interference and providing amplification from the built-in low-noise preamplifier with gain control. An adjustable position AM loop provides great broadcast band reception. FM output impedance: 75Ω (300Ω with supplied matching transformer), AM: 300Ω. 6"h x 6"w x 1.5"d. AC power adapter included..... **$49.99**

TV ANTENNAS

TV-42 **Amplified Clip-On Antenna** Attaches quickly to any 18" satellite dish and adds reception of all local VHF/UHF channels. Covers channels 2-83 and FM broadcast. Built-in internal 10dB gain amplifier to minimize signal loss, allowing distribution to multiple TV's. For Dual-LNB dishes, it has two built-in diplexers, providing more than one TV with DSS and VHF/UHF signals. Powered thru the cable by a DSS receiver. Durable, powder-coated element and weather-proof amplifier housing. 10.25"h x 21.25"w x 3.5"d **$49.99**

TV-55 **Amplified Out/Indoor TV Antenna** Uses a helical, coiled broadband single element engineered for clear, powerful reception of HDTV broadcasts. Receives both UHF and VHF frequencies from 54-806MHz. Built-in ultra-low noise 10dB amplifier can be switched in or out for best reception. Mounts in or outdoors. Includes a 12V adapter and mounting hardware. 46"w x 3.5"h x 2.25"d..... **$89.99**

HDTV-I **Indoor UHF/VHF/HDTV Antenna** Unique design utilizing long periodic-tuned elements and dipoles for receiving both UHF and VHF HDTV broadcasts, allowing reception of more stations. Tuned for optimum reception – high front-to-back ratio eliminates reflected signals and high gain picks up distant signals. 13.5"w x 9.1"h x 16.5"d. 42" high with dipoles (rabbit ears) extended ... **$29.99**

TV, A/V ACCESSORIES

MOD-41 **RF Modulator** Connect up to four A/V sources to any TV with no available A/V input jacks. Similar to VS-MOD4 below, without S-Video jacks or IR remote control. 6.5"w x 2"h x 4.25"d **$39.99**

VS4-MOD **RF Modulator-Plus** Allows connections of multiple A/V components to a TV with no available A/V (RCA) input jacks. Provides inputs for up to four A/V sources (video games, DVDs, PVRs, VCRs, satellite receivers and camcorders). Converts A/V sources to VHF for viewing on channel 3 or 4 on any TV. Compatiblle with your IR remote control to remotely switch between A/V sources. Has "F-type" antenna/cable inputs and RCA/S-Video input/output jacks. 9.75"w x 2"h x 5"d. AC wall adapter included..... **$49.99**

VR-1 **TV Volume Regulator** Delivers a consistent audio level during commercial breaks, while channel surfing or changing between A/V sources. Advanced DSP automatically adjusts sound levels while noise reduction reduces any 'hiss' present in audio and articulates quiet scenes to a level that you can enjoy. Simple plug and play, one time installation. 3.18"w x 3.87"h x 1.43"d **$49.99**

LF-30S **Leapfrog WaveMaster 30 Transmitter/Receiver System** An easy-to-use, cost effective alternative to purchasing multiple A/V components. Allows remote control use of A/V signals from one source, such as a TV with satellite or DVD player, to another within your home. Transmits a 2.4GHz band and penetrates walls, doors, ceilings and floors. Built-in IR extender enables use of existing or universal remote to control the system. Built-in modulator ensures connection to old and new TV's. 1.5"h x 7"w x 4.8"d **$99.99**

LF-IRX **Leap Frog Remote Control Range Extender** Increase capability of infrared remote controls. Provides the power to operate A/V components through walls and floors up to 100'. Operates on 418 MHz for wireless install. Simply plug base in near controlable unit, then plug the receiver in remote location. Cables and AC adapters included. 5"h x 2.5"w x 4"d ea..... **$39.99**

TSP-6 **Surge Protector** Protects satellite, antenna, cable, and phone lines from surge and spike damage while providing constant EMI/RFI noise filtering for 8 AC outlets. Automatically shuts off if protection fails. • Resettable circuit breaker • Surge and ground protection LEDs • 6' power cord with slim-line plug, 6' TV/satellite and phone cables • Rated 125V @ 15 amps..... **$29.99**

Look For This

NEW

& Check Out AES' Latest Additions.

VELLEMAN

AVW-089 **3-Channel Audio/Video Switcher** Accepts audio (left/right) and video input from three sources switchable to a single output.. **$8.99**

OUTbacker 2 The Performance Antenna

We Make it Simple ... But GOOD!

Most mobile antenna installations are notoriously inefficient and complex to install. Some are so big and cumbersome, they need guy ropes and special mounts to handle the wind load when under way. Some are single band only, others need a bag full of resonators for multi-band operation. Whips with automatic tuners or "screwdriver" types are nice, but even more cumbersome to install, usually requiring extra wiring and a controller.

The OUTbacker eliminates these "big antenna" problems while providing efficient, multi-band performance in a rugged, lightweight, single whip design. Its sleek, low profile design allows use with standard 3/8-24 bases and trunk-lip mounts.

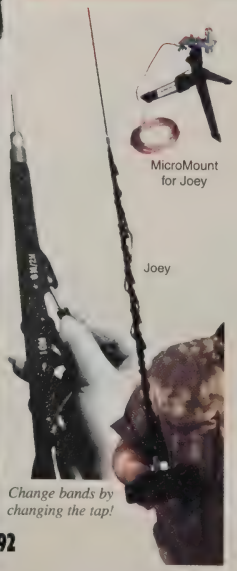
Fiberglass shaft construction, using a pre-tuned copper helical winding with clearly marked brass band taps at points along its length. A final coating of smooth epoxy resin and polyurethane, gives the OUTbacker a toughness and durability not found in other brands, while making a really good looking mobile installation.

Changing bands is a snap; simply plug into the desired band tap and resume operating without changing whips, resonators, or retuning.

MODEL	BANDS	POWER	LENGTH	PRICE
OB-8	75-10M + WARC	300W P.E.P.	6 ft.	**$319.99**
OB-8HP (HIGH POWER)	75-10M + WARC	500W P.E.P.	6 ft.	**$329.99**
OB-S8*	75-10M + WARC	300W P.E.P.	6 ft.	**$329.99**
*Breaks down into two 3 ft. sections, includes a cloth carrying pouch				
OB-8TRI Same as OB-S8 except it breaks down into three 2 ft. sections, pouch included				**$339.99**
PERTH*	75-10M + WARC	150W P.E.P.	7.5 ft.	**$329.99**
*The Most Efficient model for HF Mobile				
PERTH PLUS*	75-10 + 6/2M + WARC	150W P.E.P.	6 ft.	**$329.99**
*Perfect for HF Radios with added 6 & 2 meter capability				
STEALTH PLUS*	75-10 + 6/2M + WARC	100W P.E.P.	4 ft	**$319.99**
*Perfect for HF Radios with added 6 & 2 meter capability				
OUTREACH*	160-10M + WARC	300W P.E.P.	12 ft.	**$419.99**
OUTREACH 500*	80-6M + WARC	600W P.E.P.	12 ft.	**$449.99**
*OUTREACH and OUTREACH 500 perfect for use with the OUTPOST, below				
OB-M*	Marine/HAM*	300W P.E.P.	6 ft.	**$449.99**
*Marine: 2.182, 4.1, 6.2, 8.2, 12.4, 16.5, 22 MHz • HAM: 75, 40, 20, 17, 10M				
Joey*	80-2M + WARC	20W P.E.P.	50 in.	**$299.99**
*Improves portable performance of FT-817 and other QRP rigs.				

ALP MicroMount Desktop tripod for Joey, 8 in. tall with 12 ft. counterpoise **$49.99**

OUTPOST Base Tripod Mount for using mobile antennas in base portable applications. Improved efficiecy due to better ground coupling. Pictured with OUTbacker antenna installed (described below). Tripod only, antenna is not included..... **$199.99**



Change bands by changing the tap!

The OUTbacker/Outpost Tripod Antenna System

The Ideal Condo, Limited Space Antenna System Providing Incredible DX Performance!

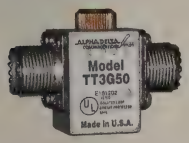
- A convenient method of utilizing OUTBACKERS for Base/Portable operation.
- The OUTbacker **Outreach** (12 ft. tall, 160-10 meters, 300 watts PEP) or the **Outreach 500** (12 ft. tall, 80-6 meters, 600 watts PEP) and the matching Alpha Delta Outpost ground coupler tripod comprise the system.
- Virtually unseen by your neighbors but provides efficient, world class "fixed station" performance.
- Users report multi-band DXCC and WAZ results. On-site comparisons with several large commercial "no radial" trap verticals (your neighbors can see those) have shown that the OUTbacker/Outpost combination works the same or better in most cases. High efficiency comes from careful design with center and 5/8-wave loading over a 12 ft. length and effective use of exclusive band taps. No control wires or motors are required as in some other designs.
- Adding to the efficiency of the system is the "ground coupling" of the Outpost tripod. Its precision designed 36 in. long x 3 in. wide "platypus" ground feet on each leg form a large capacitor with the earth, providing spectacular efficiency and coupling.
- No radials, cement mounting or tools are required. Just unfold and go! No other base provides such a level of ground coupling or ease of use. Install on patios OR in yards. Even the shorter OUTbacker models perform well on the Outpost.
- Compact, fold-up design sets up quickly and collapses in seconds; no holes, no concrete!
- A mobile-type mount on top accepts a standard 3/8-24 antenna stud and PL-259 connector.
- A fold-over top bracket, allows the antenna to be easily removed or folded down for changing bands, or to be out of view.
- Rugged 6061-T6 aircraft aluminum members,18 lbs. Stainless steel hardware and wing nuts, comes all assembled.

www.alphadeltacom.com

Effective Atmospheric Surge Voltage Protection!

Dangerous static charges measuring 1000s of volts can be developed from local thunderstorms, high wind driven snow or sand; so potent they can actually puncture the dielectric of coaxial cable. Solid-state transceivers and other equipment in your hamshack are very vulnerable to these high-voltage charges so you should take every precaution to protect your equipment and shack from possible serious damage… and ALPHA DELTA has the answer!

Special Arc-Plugs are used in ALPHA DELTA's Coax Switches, Surge Protectors and DELTA-C Center Insulator which "bleed off" slow rising static electricity charges from the feed line, routing them harmlessly to ground. This is far more effective than DC grounded baluns or chokes. But, even as effective as these devices are, you still need to pay attention to proper grounding procedures as outlined in the ARRL Handbook and other technical publications.



Lightning Surge/EMI Protectors

UL LISTED – Certified protection for your equipment from lightning and static charges much more effective than low-cost air-gap types.

The heart of this protector is an easily replaceable Arc-Plug™ – two electrodes hermetically sealed in a gas filled ceramic cylinder. Acting like a voltage dependent switch, the Arc-Plug™ can repeatedly carry large currents to ground for brief periods.

If you are running control voltages through the coax, the impedance compensated thru-line cavity design allows it to pass thru, instead of having to "wire around" as with some other DC-blocked designs.

Wide Frequency Range: DC thru 3 GHz, much wider than narrow band DC blocked or stub designs.
Low Insertion Loss: 0.1dB @ 1 GHz, 0.2dB @ 2 GHz, and only 0.5dB @ 3GHz, typical.

ATT-3G50* has Type-N females connectors, rated up to 3.0 GHz and 200 Watts **$59.99**

ATT-3G50U* has UHF female connectors, rated up to 500MHz and 200 Watts..... **$49.99**

2000 Watt version available at No Extra Cost – specify **ATT-3G50HP or **ATT-3G50UHP***

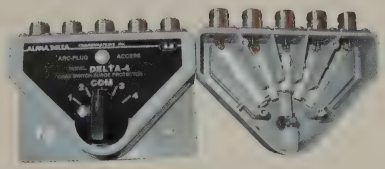
KENT Keys by ALPHA DELTA

Produced by R.A. Kent Engineers, for Alpha Delta. Rugged, machined and polished solid brass components. Delicate, smooth feel and free movement with minimum friction and side play. Silver contacts with precise gap alignments are easily adjusted with knurled heads on fine pitched screws. Non-slip feet, and weighted for stability.

SK-1 Straight Morse Key **$129.99**
SP-1 Single Paddle Morse Key **$139.99**
TP-1 Twin Iambic Morse Paddle..... **$149.99**

VK-1 The "Vail Lever Correspondent" Key A faithful reproduction, accurate to the type of hardware used during the mid-1800s, of the first full mechanism telegraph hand key made for Samuel F.B. Morse by Alfred Vail in 1844. Hand crafted and serialized – a collectable!... **$198.99**

Lightning Surge Protected Coaxial Switches



- High Quality custom design featuring a rugged Cast Aluminum Housing.
- Constant impedance micro-strip cavities that provide very low-loss and high isolation through the UHF frequencies.
- Solid, positive switching
- Rated for Full Legal power.
- A solid positive detent roller bearing switch snaps positively into each position.
- An Alpha Delta Arc-Plug™ Cartridge provides continuous surge protection. If needed, it is easily replaced from the front without disassembly.
- Automatic grounding of the unused antennas to reduce antenna interaction, noise and the effects of static charges and lightning.

DELTA-2 2-position, with SO-239 connectors and rated for operation up to 500MHz..... **$49.99**

DELTA-2/N 2-position, with N-type connectors, rated for operation up to 1.3GHz..... **$64.99**

DELTA-4 4-position, with SO-239 connectors, rated for operation up to 500MHz **$79.99**

DELTA-4/N 4-position, with N-type connectors, rated for operation up to 1.3GHz **$89.99**

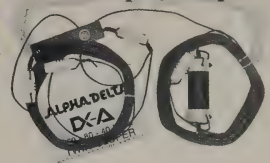
Antenna Insulator Kit with Surge Protection

DELTA-C A center insulator and two end insulators. Use for dipoles and wire antenna using either coaxial cable or balanced feed line. Rugged – highest quality, made from an virtually unbreakable UV/RF resistant material. Rated to handle full legal power. Stainless steel hardware is used in the center insulator, and all connections are hard soldered. An easily replaceable built-in Arc-Plug® in the center insulator provides surge protection from lightning and static charges **$29.99**

DELTA-CIN End Insulator only ..... ea. **$1.99**

SEP Replacement Arc-Plug® cartridge..... **$15.99**

Limited Space Slopers



- Proven 1/4-wave sloper DX Performance
- Alpha Delta "ISO-RES" inductors replace lossy traps and capacitors, handles Full Legal Power.
- Factory assembled using insulated #12 copper wire, stainless hardware and 50 ft. of nylon rope.
- Direct 50Ω coaxial feed, no tuner required. Go to **www.alphadeltacom.com** for sloper installation.

DX-A A top performing 1/4-wave Twin Sloper 160, 80 and 40 meter DX antenna. Combines the DX firepower of the 1/4-wave sloper with the wide bandwidth of a 1/2-wave dipole. Installs like an Inverted-V. Legs are 67 ft. and 55 ft. long **$59.99**

DX-B A single wire high performance 1/4-wave DX Sloper with for 160, 80, 40 and 30 meters. Installs like 1/2 of an Inverted V. Convenient limited space installation requires only 60 ft. of space for amazing DX performance with the feed-end at 35 ft. and the low end only 8 ft. above ground ... **$69.99**

Shortened Multibanders

- Alpha Delta "ISO-RES" inductors replace lossy traps and capacitors, rated Full Power.
- Direct 50Ω coaxial feed, no tuner required except for extended frequency coverage.
- Factory assembled with insulated #12 copper wire, stainless hardware and 50 ft. of nylon rope.
- Uses a DELTA-C Static Protected center insulator and DELTA-CIN end insulators.
- Install Horizontally as an Inverted-V.

DX-CC 80-40-20-15-10M, 82 ft. long.....**$119.99**

DX-DD 80-40M, 82 ft. long **$89.99**

DX-EE 40-20-15-10M plus 30-17-12M using a wide range antenna tuner, 40 ft. long..... **$99.99**

DX-LB 160-80-40M, 100 ft. long. Typical bandwidth for 2:1 VSWR: 160M (20kHz), 80M (40kHz), 40M (300kHz). Full band coverage using a wide range antenna tuner **$119.99**

DX-LB PLUS Same as DX-LB above, but adds 20-10M with parallel wires **$149.99**

Full-Size Monoband Dipoles

- 50Ω coax feed, no traps, handles Full Power
- Install Horizontally or as an Inverted V
- Rugged, full-size performance
- Factory assembled with #12 insulated copper wire, DELTA-C static protected center insulator, DELTA-CIN end insulators and includes 50 ft of nylon support rope.

DX-80 75/80 meters, 134 ft. long **$49.99**
DX-40 40 meters, 67 ft. long **$39.99**
DX-20 20 meters, 34 ft. long **$39.99**

ALPHA DELTA COMMUNICATIONS, INC. AA

www.alphadeltacom.com

THE SMILEY ANTENNA CO.

HAND TUNED ANTENNAS FOR HANDHELD RADIOS

Each Smiley antenna is individually tuned to resonance at band center under normal operating conditions (no ground plane, no radials). They're manufactured from the finest heat-treated copper plated spring steel coils. Cold rubber compound is used for coil insulation with a neoprene heat-shrink coating applied for strength and endurance. All have BNC connectors.

TS **Thin Stick** 1/4-wave telescoping dual band antenna for 144 and 220MHz bands **$16.99**

SS-II **Super Stick II** *(A)* 2M, 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain fully extended. Usable fully collapsed, or one section 1/4 wave. 54" extended, 10" collapsed..... **$19.99**

SS-II/COMBO **Super Stick II Combo** Same as above, but includes a 2m stubby duck..... **$26.99**

5/8 SLD-2 **5/8 Slim Duck** *(B)* 2m, 5/8-wave, 7db gain, flexible base loaded ant. 12" long **$17.99**

5/8 SLD-2 COMBO **5/8 Slim Duck Combo** As above, but includes a 2m stubby duck..... **$24.99**

RD-2 **Regular Duck** *(C)* For 2m. Tuned ducks show a 3db gain over other rubber ducks because they are *impedance matched* for HTs..... **$14.99**

RDS-2 **Stubby Duck** *(D)* Tuned, for 2m.. **$14.99**

SS-III **Super Stick III** 220MHz 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain extended; usable collapsed, or a one-section 1/4-wave. 36" extended, 8¾" collapsed..... **$19.99**

SS-III/COMBO **Super Stick III/Combo** As above, but incl. a 220MHz stubby duck **$26.99**

5/8 SLD-220 **5/8 Slim Duck** *(E)* 220MHz, 7db gain, flexible base loaded 9" antenna..... **$17.99**

5/8 SLD-220 COM **5/8 Slim Duck Combo** Same as above, but includes a 220MHz stubby duck antenna **$24.99**

RD-220 **Reg. Duck** *(F)* 220MHz, tuned... **$14.99**

RDS-220 **Stubby Duck** *(G)* As above..... **$14.99**

SS-IV **Super Stick IV** *(H)* 440MHz 5/8-wave, flexible telescoping ant. 6-9db gain extended; usable collapsed. 18" extended, 5¾" collapsed..... **$19.99**

SS-IV/COMBO **Super Stick IV Combo** Same as above, plus has 440MHz stubby duck..... **$26.99**

SL-440 **Slimline** *(I)* 440MHz, ¼-wv. flex. **$12.99**

5/8 SLD-440 **5/8 Slim Duck** *(J)* 440MHz, 7db gain, flexible base loaded 5" antenna..... **$17.99**

5/8 SLD-440 COM **5/8 Slim Duck Combo** As above, plus has a 440MHz stubby..... **$24.99**

RDS-440 **Stubby** *(K)* 440MHz, tuned..... **$14.99**

RDMD-440 **Mini Duck** *(L)* As above..... **$14.99**

FLX 1/2 WAV-2M **Flex-Coil** *(M)* 2M, 1/2-wave, 7-9dB gain, flexible base, 35" fully extended **$25.99**

270A *(N)* Telescoping 2m/440 gain antenna. 1/4-wave (2m) 5/8-wave (440MHz). The 270A is also available with SMA **$19.99**

TAQ 1/4-wave whip antenna, specify for 2M, 220 or 440MHz .....each **$10.99**

Arrow Antenna

146/437-10 KK5YY, pictured at the left, working VE6EGN on the AO27 satellite using a Yaesu VX-1R, with 500mW output, connected to an Arrow 146/437-10. The Arrow is designed specifically to allow portable satellite operation using just an HT. This means it's engineered to provide maximum gain and efficiency within a small size and weight. The boom construction is 3/4" square aluminum stock, 37.5" long with a foam grip on the back end for comfort. The three VHF and seven UHF Gamma matched elements with separate BNC connectors are aluminum arrow shafts which are strong and lightweight, and plastic tipped for safety..... **$73**

146/437-10BP Split boom model..... **$79**

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PREMIER communications

RD-78 RD-8 RD-98 RD-9 AL-800

HANDHELD ANTENNAS

RD-2 **Short Duck Antenna** *(not pictured)* Perfect fit for the new micro-sized handhelds such as the VX-1R, VX-5R, IC-Q7A, etc. Only 2" tall, but gives big performance. Operates on both 2M and 440MHz and also works great for out of band scanning. BNC connector **$14.99**

RD-2SMA Same as RD-2, SMA connector **$15.99**

RD-78 **Extended Duck Antenna** 15" tall, provides an improvement over stock, steel, spring-type antennas. Hit local repeaters solidly, access distant machines, talk extended simplex. Has 2.5dBi gain on VHF, 3.2dBi on UHF. Also includes 800/900MHz receive capability. Flexible, but doesn't droop. Gold-plated BNC connector **$19.99**

RD-8 **Duck Antenna** 6.5" tall and very flexible. Improves your signal over any manufacturer's stock duck. The perfect companion to any 2M/440MHz handheld, including those with 800/900MHz receive. Gold-plated BNC connector..... **$14.99**

RD-98 **Thin Whip Antenna** A 2M/440MHz HT antenna that is 17" long with a diameter of only 1/16th of an inch. Made of extremely strong and very flexible material – ties in a knot without damage! BNC connector **$24.99**

RD-98SMA Same as RD-98, SMA conn... **$27.99**

RD-9 **Flexible Duck Antenna** An extremely flexible 7" tall rubber duck that will improve handheld performance on both 2M and 440MHz. while providing 800/900MHz receive capability. Connector is protected by a moisture shield and is molded to sit firmly on the connector, preventing excessive wear and tear. BNC connector **$18.99**

RD-9SMA Same as RD-9, SMA conn..... **$20.99**

AL-800 **Telescoping Antenna** Useful whenever you need extra performance for satellite work, or when on the fringes of a repeater. Telescopes to 34" or collapses to 10". Has 3.2dBi gain on VHF, 5.5dBi on UHF. For convenience and/or shorter range operation, the telescoping section unscrews and may be replaced with the included 9" rat tail. Gold-plated BNC connector..... **$29.99**

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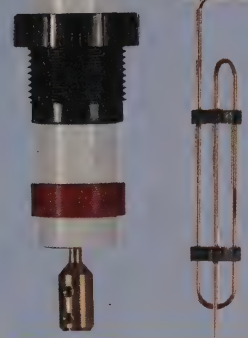
NEW from Kuranishi Instruments LTD, Japan

BR-200 Professional-Grade SWR/Antenna Analyzer

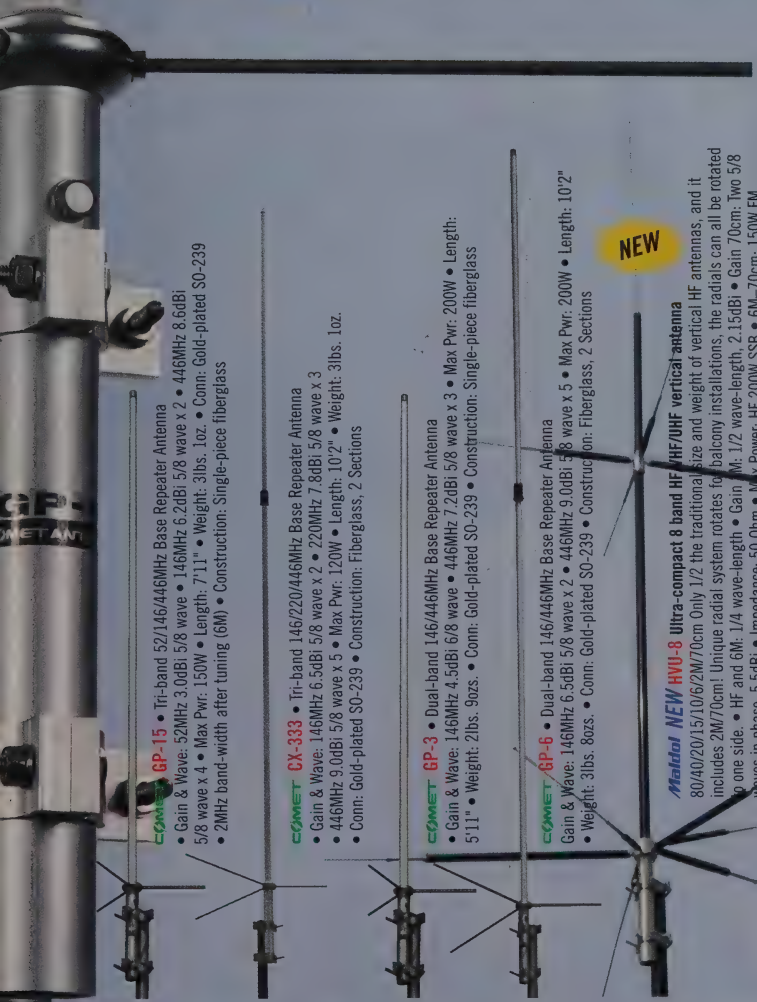
Perform SWR and impedance measurements with confidence! The BR-200 is a laboratory grade precision test instrument providing a wide-band RF signal source for analyzing antenna systems and other equipment without the need for a separate transmitter. • 1.8-170MHz • High precision meter • 500mW 50 Ohm dummy load included • Impedance measurements: 12.5 - 300 Ohm • Connector: SO-239

COMET & Maldol

Dualband and Multiband Base Antennas



Wi-Fi/802.11b/LAN/HSMM Access Point Antennas



COMET **GP-15** • Tri-band 52/146/446MHz Base Repeater Antenna • Gain & Wave: 52MHz 3.0dBi 5/8 wave • 146MHz 6.2dBi 5/8 wave x 2 • 446MHz 8.6dBi 5/8 wave x 4 • Max Pwr: 150W • Length: 7'11" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • 2MHz band-width after tuning (6M) • Construction: Single-piece fiberglass

COMET **CX-333** • Tri-band 146/220/446MHz Base Repeater Antenna • Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 220MHz 7.8dBi 5/8 wave x 3 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 120W • Length: 10'2" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

COMET **GP-3** • Dual-band 146/446MHz Base Repeater Antenna • Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Max Pwr: 200W • Length: 5'11" • Weight: 2lbs. 9ozs. • Conn: Gold-plated SO-239 • Construction: Single-piece fiberglass

COMET **GP-6** • Dual-band 146/446MHz Base Repeater Antenna • Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 200W • Length: 10'2" • Weight: 3lbs. 8ozs. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

NEW

Maldol NEW **HVU-8** Ultra-compact 8 band HF/VHF/UHF vertical antenna 80/40/20/15/10/6/2M/70cm Only 1/2 the traditional size and weight of vertical HF antennas, and it includes 2M/70cm! Unique radial system rotates for balcony installations, the radials can all be rotated to one side. • HF and 6M: 1/4 wave-length • Gain 2M: 1/2 wave-length, 2.15dBi • Gain 70cm: Two 5/8 waves in phase, 5.5dBi • Impedance: 50 Ohm • Max Power: HF 200W SSB • 6M–70cm: 150W FM • Conn: SO-239 • Height: Only 8'6" • Weight: 5lbs. 7ozs.

COMET **GP-9/GP-9N** • Dual-band 146/446MHz Base Repeater Antenna • BEST SELLER! • Gain & Wave: 146MHz 8.5dBi 5/8 wave x 3 • 446MHz 11.9dBi 5/8 wave x 8 • Max Pwr: 200W • Length: 17'8" • Weight: 5lbs. 11ozs. • Conn: GP-9 Gold-plated SO-239 • GP-9N Gold-plated N-type female • Construction: Fiberglass, 3 Sections

COMET **GP-24** The standard high gain 2.4GHz access point antenna for maximum range/signal strength • 2400-2500MHz • Gain: 15.4dBi • Length: 5'10" • Weight: 2lbs. 9ozs. • Conn: Gold-plated N-female • Construction: Heavy-duty white fiberglass radome

COMET **GP-24-3** The same physical high gain 2.4GHz antenna as the GP-24, but with a 3-degree electrical downtilt to concentrate the signal to the horizon and below

COMET **GP-24-S** Medium gain access point antenna for applications where maximum distance is not as important as a solid signal around and directly below the antenna. • Gain: 9.9dBi • Length: 3'9" • Weight: 1lb. 14ozs. • Conn: Gold-plated N-female • Construction: Heavy-duty white fiberglass radome

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COMET™ and Maldol Mobile

NEW

Maldol NEW MH-511 • Tri-band 6M/2M/70cm HT Antenna • Length: 4" • Conn: Male SMA

Maldol MH-510 • Tri-band 6M/2M/70cm HT Antenna • Gain: 0/0/3.2dBi • Length: 20.75" • Conn: Male SMA

COMET HT-224 • Tri-band 2M/220/70cm HT Antenna • Gain: 1.3/1.4/1.8dBi • Length: 11.5" • Conn: Male SMA

Maldol MH-610 • Tri-band 2M/220/70cm HT Antenna • Gain: 0/1.8/3.2dBi • Length: 14" • Conn: Male SMA

NEW

Maldol NEW EX-510B/EX-510BNMO • Tri-band 6M/2M/70cm with fold-over • Gain & Wave: 52MHz 1/4 wave 146MHz 2.15dBi 1/2 wave 446MHz 5.5dBi 5/8 wave x 2 VSWR • Length: 37" • Conn: PL-259 or NMO style • Max Power: 50W FM

Maldol AX-75 2M/70cm dual-band shown mounted on the Comet **CP-5M** heavy-duty universal lip mount. Several antenna connector versions are available, all with 16 ft. of 2-step coax and terminating in a PL-259 conntector.
Coax max pwr: HF/130W, VHF/75W, UHF/45W

COMET CP-5M SO-239 conn
COMET CP-5NMO NMO conn
COMET CP-5 3/8-24 3/8 x 24 conn

COMET SB-15 • Tri-band 6M/2M/70cm with fold-over • Gain & Wave: 52MHz 0dBi 1/4 wave • 146MHz 4.5 dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: PL-259 • Max Pwr: 120W

NEW

NEW UHV-4 • Quad-band 10M/6M/2M/70cm with fold-over hinge • Gain & Wave: 10M & 6M 1/4 wave 2M 2.15dBi 1/2 wave 70cm 5.5dBi 5/8 wave x 2 • Length: 55" • Max Power: 10M 120W SSB 6M2M/70cm 100W FM • Conn: PL-259

COMET UHV-6 • HF/6M/2M/70cm Mobile Antenna *80/*20/*17/40/15/10/6/2M/70cm Mobile antenna with fold-over hinge • Gain & Wave: 2M 2.15dBi 1/2 wave • 70cm 5.5dBi 5/8 wave x 2 • VSWR: HF 1.6:1 or less, 6M-70cm 1.5:1 or less • Length: 44" (min), 78" (max) • Max Pwr: HF 120W SSB, 6M 200W SSB/100W FM, 2M/70cm 100W FM • *L-18 optional 17M coil • *L-3.5 optional 75/80M coil • Features: • 6M/2M/ 70cm operation is constant. You CHOOSE the HF coils you want to add, up to four stock or optional. One vertical, the rest horizontal. • Easily mounts to standard trunk/door mount in minutes • Economical • Fold-over hinge built in • Select the duplexer or triplexer for your specific radio(s). CF-706A, CF-530, CFX-514N.

COMET UHV-6 Fold-Over Position

NEW

Maldol NEW HMC-6S • *40/20/15/10/6/2/70cm Mobile antenna with fold-over hinge • Gain & Wave: HF 1/4 wave 2M 2.15dBi 1/2 wave 70cm 5.3dBi 5/8 wave x 2 • VSWR: HF-6M 1.6:1 or less 2M/70cm 1.5:1 or less • Length: 66" • Max Power: HF 120W SSB 6/2/70cm 150W FM *HMC-7C optional 40M coil

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COMET BNC-24 • Dual-band 2M/70cm HT Antenna
RX range: 100-1200MHz • Gain: 2.15/3.5dBi • Length: 17" • Conn: BNC
Super flexible featherweight whip

COMET SMA-24 • Dual-band 2M/70cm HT Antenna
RX range: 100-1200MHz • Gain: 2.15/3.5dBi • Length: 17" • Conn: SMA
Super flexible featherweight whip

COMET SMA-503 • Dual-band 2M/70cm HT Antenna
RX range: 100-1200MHz • Length: 8.75" Conn: SMA

Maldol MH-209 (BNC Conn) • 2M/70cm Dual-band HT Antenna
Maldol MH-209SMA (SMA Conn)
Gain & Wave: 0 1/4 wave • Length: 3" Soft flexible rubber

NEW APEX Series
MALDOL'S Newest Mobiles!
Bright Chrome and Brushed
Aluminum Finish!

NEW Challenger Series
COMET'S Newest Mobiles!
Sleek, Super-Flexible,
Dark Chrome Finish

NEW Maldol NEW AX-50 • Dual-band 2M/70cm
Gain & Wave: 2M 1/4 wave • 70cm 5.0dBi 9/8 wave • Length: 21" • Conn: PL-259 • Max Power: 60W

NEW Maldol NEW AX-75 • Dual-band 2M/70cm w/fold-over
Gain & Wave: 2M 1/2 wave center load 3.2dBi • 70cm 5/8 wave x 2 5.7dBi • Length: 30" • Conn: PL-259 • Max Power: 60W

NEW Maldol NEW AX-95 • Dual-band 2M/70cm w/fold-over
Gain & Wave: 2M 1/2 wave center load 3.3dBi • 70cm 5/8 wave x 2 5.8dBi • Length: 38" • Conn: PL-259 • Max Power: 60W

COMET B-10/B-10NMO • Dual-band 146/446MHz cellular look-a-like
Gain & Wave: 146MHz 0dBi 1/4 wave, 446MHz 2.15dBi 1/2 wave • Length: 12" • Conn: B-10 PL-259/B-10NMO NMO • Max Pwr: 50W

SBB-2/SBB-2NMO • Dual-band 146/446MHz
Gain & Wave: 146MHz 2.15dBi 1/4 wave, 446MHz 3.8dBi 5/8 wave center load • VSWR: 1.5:1 or less • Length: 18" • Conn: PL-259 or NMO Style • Max Pwr: 60W

Maldol NEW EX-107B/EX-107BNMO • Dual-band 146/446MHz
Gain & Wave: 146MHz 2.6dBi 1/2 wave, 446MHz 4.9dBi 5/8 wave x 2 • VSWR: 1.5:1 or less • Length: 29"
• Conn: PL-259 or NMO Style • Max Pwr: 100W

COMET SBB-5/SBB-5NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.5dBi1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: SBB-5 PL-259/SBB-5NMO NMO • Max Pwr: 120W

COMET SBB-7/SBB-7NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: SBB-7 PL-259/SBB-7NMO NMO • Max Pwr: 70W

NEW COMET NEW C757/C757NMO Challenger Series • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.15dBi 1/2 wave, 446MHz 5.5dBi 5/8 wave x 2 • VSWR: 1.5:1 or less
• Length: 38" • Conn: PL-259 or NMO Style • Max Pwr: 80W

COMET NEW CP-5M, CP-5NMO, CP-5 3/8-24 *Universal mount and coax cable combos.* (SO-239, NMO, 3/8-24/PL-259) Heavy-duty, adjustable RS-730 trunk/van/SUV/truck door mount and deluxe cable assembly. 16' 6" length w/18" mini RG-188A/U type coax. Max antenna 70".

NEW COMET NEW C767/C767NMO Challenger Series • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 3.5dBi 1/2 wave center load, 446MHz 6.0dBi 5/8 wave x 2 center load • VSWR: 1.5:1 or less
• Length: 40" • Conn: PL-259 or NMO Style • Max Pwr: 80W

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specialists in "No Holes Mobile Mounts!"

CP Series Universal Lip Mounts

Four adjustment planes, four large setscrews holds them securely in place on virtually any lip 1/4" thick or less. Use on trunk lids, van doors, truck doors, hoods etc. 16' 6" of deluxe coax cable including 18" of mini RG-188A/U style for easy entry thru the weather seal without causing wind noise, water leaks and/or wind noise.

Max antenna size: 70"/16 ozs

Max Power: HF 130W VHF 75W UHF 45W

COMET *NEW* CP-5NMO Universal lip mount with coax, NMO and PL-259 connectors.

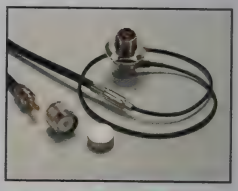
COMET *NEW* CP-5 3/8-24 Universal lip mount with coax, 3/8x24 threaded stud and PL-259 connectors.

COMET CP-5M Universal lip mount with coax, SO-239 and PL-259 connectors.

Mount: CP5M Antenna: C757

Combine the coax style and length you need with a bracket from below. (assemblies also available with N-connectors)

COMET 3D5M/3D4M Standard low loss cable assembly. Gold plated SO-239/PL-259 connectors. 17' length/13.5' length.



COMET CK-3M5/CK-3M Deluxe cable assembly 17' length including 17" of RG-188A/U for easy entry from a lip mount without causing water leak, wind noise or coax damage. CK-3M 9'9" total length.

Choose the bracket that best fits your antenna and vehicle. All have multiple adjustments and fit virtually any lip 1/4" thick or less. Soft rubber protects the vehicle paint.

COMET RS-730 Heavy-duty, 4 adjustment planes, up to 70" antenna.

COMET RS-720/ RS-720NMO Med-duty, 3 adjustment planes, up to 60" antenna. NMO mount version.

COMET RS-520 Light-duty, 3 adjustment planes, up to 45" antenna.

Maldol PRM-T Heavy-duty, 3 adjustment planes, up to 80" antenna.

Maldol MK-30H 12VDC motorized mount. Mounts to vertical or horizontal door lip. Up to 70"/19 oz. antenna.

Maldol 5M-D60 Light-duty, 2 adjustment planes, up to 40" antenna.

COMET GRB-5M **Trunk lip mount, low-profile, black anodized stainless steel.** Offset washers provide up to 17 deg vertical adjustment of antenna. 16'9" of deluxe cable included, 18" of mini RG-188A/U style coax for easy entry thru the weather seal. Gold-plated SO-239/PL-259 connectors.

The rear doors on newer trucks are the perfect place to mount antennas: • No holes to drill • Above roof line • Easy access

When mounting to a van, SUV, truck, etc., use the CP-5M or build your own system with components shown above. There are several mount sizes, coax diameters and coax lengths from which to choose.

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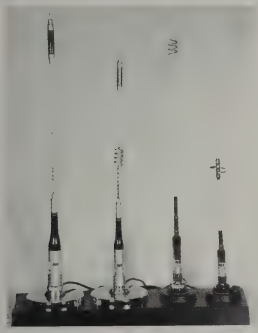
MFJ ENTERPRISES, INC.

HT RANGE EXTENDERS

1714 Long Ranger™ 2M Halfwave For really long range, this MFJ end-fed half-wave is hard to beat. It outperforms a 5/8 wave on a handheld because it does not need a ground plane. The 1714 is shorter (40" extended), lighter, has more gain & places less stress on your antenna connector. When collapsed (10.5"), it performs like a rubber duck ... **$16.99**

1712 Dual Bander™ 2M and 440MHz New dualband handheld or separate units? One antenna fits all. It's 1/4 wave for 2m and 5/8 wave with gain for 440MHz. 7.25" collapsed, 19" extended..... **$14.99**

1710 Pocket Linear™ 3/8 Wave, 2M Carry in your pocket like a ballpoint pen. When using your rubber duck, on the fringe and noisy, put on the Pocket Linear, extend to 24.5" and carry on your QSO. Pocket clip. 5.25" collapsed..... **$9.99**



RUFFRIDER™ MOBILE ANTENNAS

(mounts not included)

This series features quality construction using precision machined components. Designed to battle the elements, rugged rides and highway abuse.

Dual band 144/440MHz mobiles have stacked stainless steel elements with high-Q phasing coils resulting in outstanding gain. Phased radiators flatten radiation patterns and concentrate transmit power at the horizon for maximum distance.

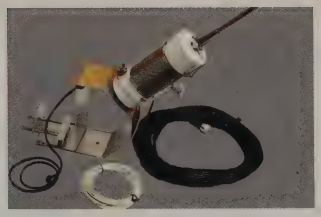
All models are factory tuned for SWR less than 1.5:1 and have 50Ω impedance. Each comes w/SO-239 base, but also includes a **FREE** NMO adapter.

1402 Junior 16.5" antenna fits in any garage on any vehicle. Unity gain on 2M, 3dB gain on 440 MHz. Handles 100W. No fold-over **$34.99**

1412 High Power Only 40" long but handles a full 200W. Great for high power mobile & amp. 3dB on 2M, 5.5dB on 440MHz **$49.99**

1422 High Gain 41.5" long giving you extra gain with little increase in height. Handles 150W. 3.2dB on 2M, 5.7dB on 440MHz..... **$49.99**

1432 Highest Gain Tall 62.5" brute gives you a whopping 5dB gain on 2M, 7.6dB gain on 440MHz. Handles 150W..... **$69.99**



1622 Apartment Antenna *(top)* Operate 40–10M, 6M and 2M, up to 300W P.E.P. Tuning is accomplished by changing the tap on the highly efficient air-wound coil and adjusting the counterpoise for best SWR. Its universal mount/clamp lets you easily attach it to window frames, balconies and railings. It also works great indoors mounted to a desk, table or bookshelf. The 5.5' radiator collapses to 2.5' for easy storage and carrying. It includes 50' of coaxial cable, RF choke balun, 50' of coax, counterpoise wire and safety rope..... **$89.99**

1624 HF Mini Bugcatcher Operate 40–6M, up to 300W P.E.P. Tune by changing the tap on the efficient air-wound coil and adjusting the counterpoise for best SWR. The 5.5' whip collapses to 2.5' for storage or avoiding a garage door. Use trunk lip, mirror, luggage or tri-mag mount **$79.99**

1778 All-Band G5RV Antenna Center fed, 102' flat top with a 300Ω twinlead feeder system and SO-239 connector to accept the 52Ω coax run from the shack. This unique design covers all bands 80 thru 10 meters with a nominal VSWR, so using an antenna tuner is recommended with most rigs. Also can be installed as an inverted vee or sloper. Works great on 160 meters operating as a Marconi with tuner and good ground. Handles 1500W..... **$39.99**

1910 Telescoping Fiberglass Mast *(right)* Great for portable and temporary use – traveling, camping, hotels, hamfests, field day, DX-peditions. Use to construct loops and quads. Pull out each section and twist to lock, strong fiberglass, flexes to resist breaking. Extends to 33' and collapses to 3.8' Bottom section 1.75" diameter. 3.3 lbs **$79.99**

1899T Walkabout™ Multi-band Telescopic Antenna Designed specifically for the Yaesu FT-817 multi-mode HF/VHF/UHF portable transceiver or other QRP portables. Covers all bands (including WARC bands) from 80 to 6 meters. Power rating is 25 Watts. When fully extended it is just over 5' long and is fitted with a BNC connector. Band changing is achieved by plugging a lead into the appropriate socket on the base coil, and fine tuning using the 10-section telescopic whip. The whip unscrews from the base matching coil, so, collapsed, the antenna measures only about 8 inches **$129.99**

MFJ Manually Tuned Screwdriver Antenna Small and lightweight, supplied with a 4.5' telescopic whip for mobile and a 10' telescopic whip for greater efficiency stationary use. Quickly and easily tuned by sliding the aluminum cover over the coil. Copper beryllium finger stock completely surrounds the coil for solid connection as tuning is accomplished. Unused turns on the antenna are shorted out and completely shielded. Once tuned, a nylon tipped thumbscrew locks the cover in place to prevent movement. The 4.5' whip collapses to 23", the 10' whip to 19". Coil and whips can easily be packed into a backpack for hiking or camping. A standard 3/8" x 24 male mount in the base makes it easy to connect to existing mount.

1661 40-2M, 12", 1 lb..... **$109.99**

1664 80-6M, 15",1.25 lbs **$139.99**

1020C Indoor Active Antenna 300 kHz–30MHz; 5 bands. Telescoping (21") antenna provides good signal strength. Functions as a preselector when using an external antenna – minimizes intermod, improves selectivity, reduces noise. Uses 9V battery, 9-18V DC or 110V. 5"w x 2"h x 6"d..... **$79.99**

1024 Outdoor Active Antenna For 50kHz to 30 MHz reception. Separate RF amp module with 54" whip mounts outside, interconnect made by supplied 50' coax to control unit, containing gain control and 20dB attenuator. Select between 2 receivers & auxiliary antenna. Auxiliary in/output jacks. 12VDC or 110VAC. Control: 6"w x 2"h x 5"d, Module: 3"h x 4"w x 4"d..... **$129.99**

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Miracle Antenna

MIRACLE WHIP All-Band, Rig-Mounted, Tunable Whip For the FT-817, and other QRP (5W) or SWL rigs. The Miracle Whip is the only completely self-contained, all-band 57" telescoping whip antenna with integrated tuner for receiving and transmitting that mounts right on a radio's antenna connector. Continuous tune 0.6 to 500 MHz rx and continuous tune 3.5 to 450MHz tx. The continuously variable auto transformer design operates effectively without any added counterpoises as the continuously variable nature permits finding a good match when there is no "standard" counterpoise attached. In effect, it uses whatever ground paths are available as a counterpoise..... **$139.99**

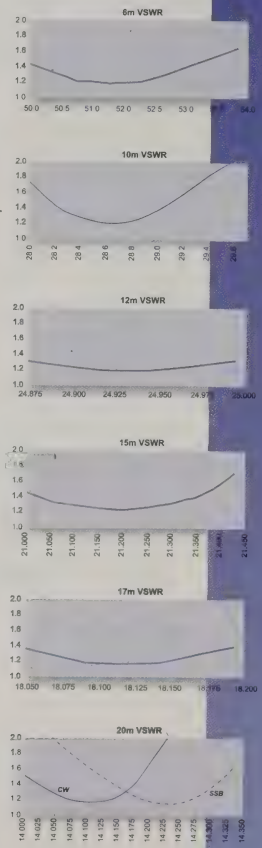
R6000 MULTIBAND VERTICAL

6 - 20 Meters

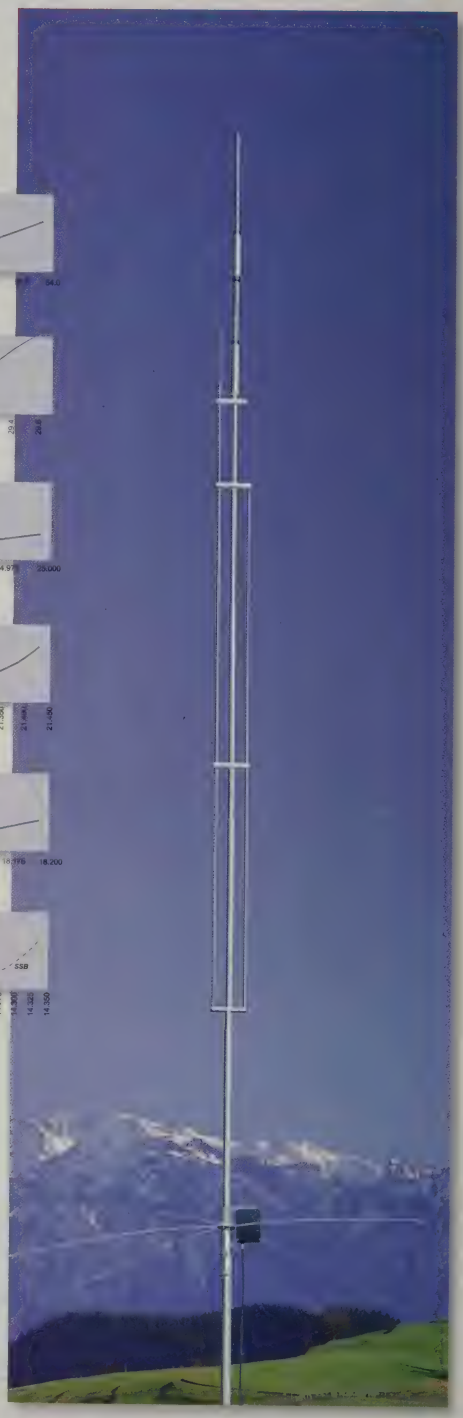
The Shape of Things to Come

The R6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R8, R7 and R5 antennas. R6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.

- **EASY INSTALLATION**
  For typical use, tuning is not required
- **AUTOMATIC BAND CHANGING**
  To any band 6 through 20 meters
- **SLIM SILHOUETTE**
  Gain favor of family and neighbors with the slim, low profile of the R6000
- **6 METER OPERATION**
  Join the fun of the "Magic Band" and take advantage of the new HF/50MHz tranceivers
- **AFFORDABLE PRICE**
  Cushcraft delivers the best quality and performance at a price no one else can match.



SPECIFICATIONS	R6000
Frequency, meters	6, 10, 12, 15, 17, 20
Gain, dBi	3
VSWR minimum	1.2:1 typical
2:1 bandwidth, KHz	6m >1300
	10m >1700
	12m >100
	15m >450
	17m >100
	20m 300
Power ,Watts output	1500
Radiation angle, deg.	16
Horizontal rad, deg	360
Height, ft (m)	19 (5.8)
Mast size range, in	1.5 -1.75
(cm)	(3.8-4.4)
Wind load, ft^2 (m^2)	1.5 (.14)
Weight, lb (kg)	12.5 (5.6)



The R6000 employs quarter wavelength stubs on 10 and 15 meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R6000 comes with the standard Cushcraft warranty of one year from purchase - plus the industry's leading technical support team stands behind each Cushcraft antenna.

The R6000 makes an excellent diversity antenna to complement even the most complete stations, or pack up the R6000 for a trip to the DX location of your dreams.

CUSHCRAFT CORPORATION

R8 MULTIBAND VERTICAL

HF Multiband Vertical Antenna

6, 10, 12, 15, 17, 20, 30, 40 Meter

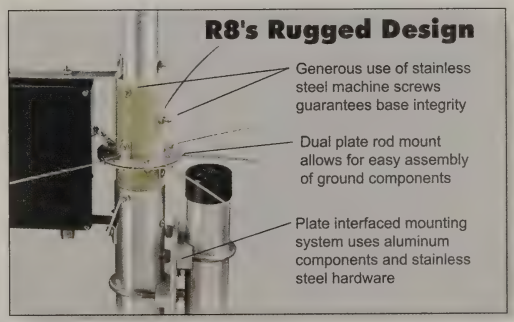
Here is Cushcraft's newest multiband HF vertical antenna. This multiband vertical design provides 8 band coverage encompassing the 6, 10, 12, 15, 17, 20, 30 and 40 meter bands.

Cushcraft has achieved a major breakthrough in the development of an HF multiband vertical antenna that has been specifically designed for use with a tuner and amplifier. As a result, the antenna more accurately addresses the needs of the contemporary ham shack.

Multiband vertical antennas have always been complicated designs with components as likely to be damaged by high levels of mismatched transmit power as the rigs they are attached to. Before the use of tuners became widespread, the antenna was protected by the same safety mechanisms that protected the rig. Now, the automatic power reduction circuits of of the past have actually become a second layer of protective circuitry. Although the auto-tuner provides the ham with a more versatile device as well as protecting the rig's components, the antenna is more vulnerable than ever. With the press of a button, very high loads can be imposed on the antenna. The result to the antenna can be catastrophic failure in some instances.

The R8 is the first multiband vertical designed for the rigors of contemporary operating conditions. Although the antenna is best operated within it's 2.0:1 VSWR bandwidth, it can sustain a 3.0:1 VSWR mismatch at full power for typical operating intervals. Now radio amateurs can take full advantage of the versatility that a tuner used in conjunction with a multiband HF vertical antenna can give them. *For high wind environments, add the R8GK Guy kit–three point non-conductive guy system.*

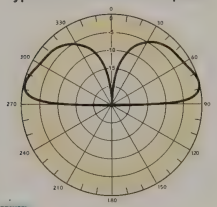
- **RUGGED CONSTRUCTION**
- **INSTANT BAND CHANGING**
- **SLIM, LOW PROFILE SILHOUETTE**

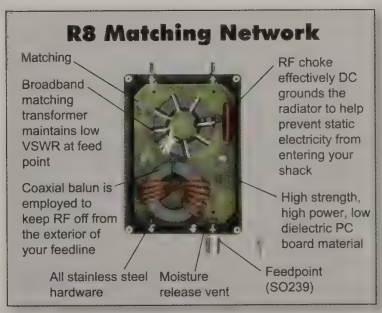


SPECIFICATIONS	R8
Frequency, meters:	6,10,12,15,17,20,30,40
Gain, dBi:	3
VSWR 2:1 bandwidth, KHz:	40m (150)
	30m (>50)
	20m (>350)
	17m (>100)
	15m (>450)
	12m (>100)
	10m (>1500)
	6m (>1500)
VSWR at resonance (typical):	1.3:1
Power Rating, Watts PEP:	1500
Vertical Radiation angle, deg.:	16
Horizontal rad, deg.:	360
Height, ft(m):	28.5 max. (8.7)
Wind survival:	80 mph
Weight, lb. (kg):	23 (10.5)
Shipping Dimensions:	3-3/4" x 5-1/4" x 84-1/2"

Even if you aren't using a tuner and amplifier, you will appreciate this antenna's rugged, heavy duty components. The R8 is easy to assemble and is built to provide years of trouble free service and satisfaction.

Typical elevation radiation pattern





INTRODUCING, MA5V/MA6V VERTICALS

6 - 20 Meters

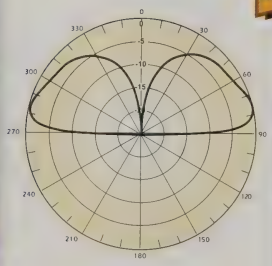
MA5V Five-Band Restricted-Space Vertical Antenna

- Light-weight rugged construction
- Rapid breakdown for storage or transport
- No exotic matching networks or tuners
- Advanced "no radial" OCFD design

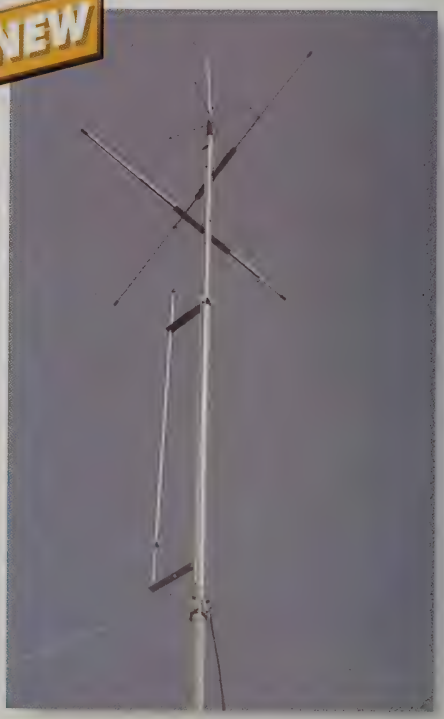
Cushcraft's new MA5V delivers superb HF multi-band performance while maintaining a neighbor-friendly low profile. Perfect for roof-mounts, patios, small backyards, condos, and motor homes, this 6.5-pound bantam-weight installs quickly without the "heavy lifting" required of larger antennas. Whether you install it permanently or take it down between operating sessions, you'll appreciate special features like the MA5V's gust-absorbing fiberglass base, resin-sealed resonator coils, aluminum mast blocks, and all-stainless hardware. Best of all, the MA5V is solidly engineered—its "no-radial" OCFD design delivers low SWR and high performance without using exotic matching networks or tuners. Simply connect a radio and you're ready to work the world! The MA5V is the perfect restricted-space DX solution for 20, 17, 15, 12, and 10 meters!

MA6V Six-Band Restricted-Space Vertical Antenna

Made for today's expanded-coverage radios, Cushcraft's MA6V provides the same great versatility and performance of the MA5V—with the addition of 6 Meters. Enjoy congestion-free FM-repeater operation and explore the world of exotic seasonal band openings on 50 MHz CW and SSB. It's a great way to add amateur radio's "magic band" to your operating repertoire!



Typical elevation radiation pattern



SPECIFICATIONS	MA5V	MA6V
Frequency, meters:	20, 17, 15, 12, 10,	20, 17, 15, 12, 10, 6
Gain, dBi:	1-2	1-2
VSWR at resonance:	1.2:1 All bands	1.2:1 All bands
Maximum Wind Surface:	.82 ft^2 (.076 m^2)	.82 ft^2 (.076 m^2)
Wind Survival, mph:	>80	>80
Maximum Power PEP:	250 W	250 W
Height, ft (m):	14.7 (4.48)	14.7 (4.48)
Mast size, in (cm):	1.25 -2.0"	(3.18-5.1)
Weight, lb (kg):	6.5 (2.95)	6.9 (3.13)
Shipping Dimensions:	3" x 3" x 80-1/2"	3" x 3" x 80-1/2"

CUSHCRAFT CORPORATION

HF MULTIBAND BEAM

High Front To Back Ratio
On 10/15/20m

The Director, Small Footprint–Big Signal

MA5B. Cushcraft's newest multiband HF antenna provides 5 band directivity in a package small enough to mount to a tripod. The MA5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.

- *I am delighted with the performance compared with other HF antennas I have been using!*
  Bob Swannell, MOBYA

- *Thank you for making a fine quality, powerful mini beam that can fit anyones budget.*
  Phil West, KF2WL

SPECIFICATIONS	MA5B					
Frequency, MHz	10	12	15	17	20	Meters
Elements	2	1	2	1	2	per band
Gain	5.3	1.0	4.8	1.0	3.6	dBi
Front to Back Ratio	10	0	12	0	22	dB
Sidelobe Attenuation	25	25	25	25	25	dB
VSWR 2:1 Bandwidth	665	>110	255	>100	90	kHz
Longest Element	17.1ft (5.2m)					
Turning Radius	8.8ft (2.7m)					
Boom Length	7.3ft (2.2m)					
Boom Diameter	1.5in (3.8cm)					
Max. Wind Surface Area	3.22 ft^2 (.3m^2)					
Max. Power Handling	1.2 kw					
Weight	26.5 lbs. (12kg)					

- **Easy To Tune**
  No complicated gamma matches to adjust.
- **Low VSWR**
  Flat response across all 5 bands. VSWR minimum 1.2:1.
- **Single Feed Point**
  Only one coaxial feed line is necessary for all 5 bands.
- **Rugged Construction**
  Cushcraft's tried and true stainless steel mounting hardware and heavy wall aluminum tubing make for a rugged, long lasting antenna.
- **Easy To Turn**
  With a boom length of 7 feet and a longest element length of 17 feet, a lightweight TV rotor will do the trick.

BIG THUNDER TRIBANDER

- New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern
- 100+ MPH Construction for Best Reliability and Long Life
- NEW 4L Log Cell Driven Elements for better VSWR Bandwidth
- Trapless Driven Elements and Reflectors for Reliable Power Handling
- Interleaved Element Design for Mono-Band Performance
- Add-on kits available for 40 Meters

Element Hardware

Boom-to-Mast

40 Meter Add On Kits

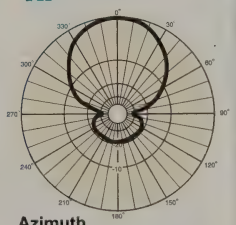
MODEL	X740
Band	7 MHz
Element Length ft. (m)	41 (12.5)
Power (W)	2KW
Weight	20lbs. (9.1 kg)

X7

The X7 Triband Yagi is geared to set new standards in both radiating performance and mechanical reliability. Cushcraft's product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques.

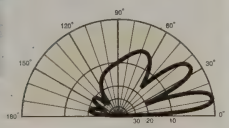
Each mechanical component was designed to 100+ MPH wind survival with a 1.25 safety factor. Traps were eliminated from the high current driven elements and reflectors using the new 4L Log Cell design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna which will easily handle the legal limit.

X7



Azimuth

Typical radiation patterns.
Height: One wavelength.
Frequency: 20 M



Elevation

SPECIFICATIONS		X7
Frequency Coverage (Meters)		10, 15, 20
Total number of Elements		7
Maximum Gain (dBi)	20M	12.5 @ 14 deg
@ One Wavelength	15M	13.0 @ 12 deg
	10M	12.9 @ 14 deg
Maximum Front to Back Ratio (dB)		30
Number of Elements per Band		3
VSWR Minimum		1.1:1
VSWR 1.5:1 Bandwidth (KHz)	20M	600
	15M	750
	10M	1700
Longest Element, ft (m)		37.2 (11.33)
Turning Radius, ft (m)		20.0 (6.09)
Boom Length, ft (m)		18 (5.49)
Boom Diameter, in (cm)		2-1/2 (6.35)
Maximum Mast Diameter OD, in (cm)		2-1/2 (6.35)
Maximum Wind Survival, mph (kph)		>100 (>161)
Maximum Wind Surface Area, ft^2 (m^2)		7.9 (.73)
Windload @ 80 mph, lb (kg)		202 (92)
Maximum Power Handling (KW)		2
Weight, lb. (kg)		60 (27.2)

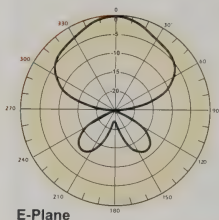
CUSHCRAFT CORPORATION

ASL670 LOG PERIODIC ANTENNA

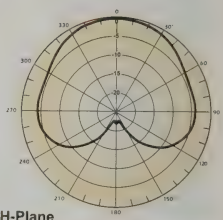
6 Meter - 70 CM

The antenna exhibits excellent gain and f/b with good VSWR bandwidth to boot. Get one today and enjoy the fun of high performance operation and multi-frequency listening all in one compact antenna.

- Rugged construction
- Wide band Log Periodic
- Easy to install
- Easy to turn



E-Plane



H-Plane

MODEL	ASL670
Frequency, MHz:	50 - 450, Continuous
No. Elements:	14
Forward Gain, dBi, dBd:	6.5, 4.5
Front to Back Ratio, dB:	20
SWR:	1.5:1 Average
Power Rating, Watts PEP:	300
3dB Beamwidth, Degrees, H-Plane:	110
E Plane:	80
Boom Length, ft (m):	6'-8" (1.9)
Boom Size, in (cm):	1.0 x 2.75 (2.54 x7)
Longest Element, ft (m):	126.6" (3.22)
Turning Radius, Horizontal Mtg. ft (m):	6'-3" (1.9)
Turning Radius, Vertical Mtg. ft (m):	3'-9" (1.15)
Mast Size Range, in (cm):	1.5"-2.5" (3.8-6.4)
Wind Load, ft^2 (m^2):	3.0 (.28)
Weight, lb (kg):	11-1/4 (5.15)

ASL670 Log Periodic

Cushcraft's new ASL670 is the ultimate multi-use antenna. Since the antenna is a log periodic, it offers continuous coverage through the 2 and 6 meter bands as well as 220 and 440 MHz. So, while being a terrific antenna for operating on those bands, it is also a great aviation and public safety band monitoring antenna. Use the antenna for contesting and mountain topping if you like. The antenna is compact and easy to assemble and disassemble with no tuning required. Yet it is rugged enough for permanent installation. The ASL670 really shines in its performance specs.

- Continuous five band coverage from 13.5 to 32 MHz
- Constant over entire frequency range
- 6.4 dBi gain, 65 degree beamwidth
- High efficiency design, antenna stays cool and VSWR steady
- 18 foot boom and 19.5 foot turning radius

MODEL	ASL2010
Frequency, MHz	13.5-32
No. Elements	8
Forward Gain, dBi	6.4
Front to Back Ratio, dB	15-20
SWR 1.2:1 Typical	
2:1 Bandwidth	18.5 MHz
Power Rating, Watts PEP	2000
3dB Beamwidth, Degrees	
E Plane	65
Boom Length, ft (m)	18 (5.48)
Boom Diameter, in (cm)	2.0 (5.08)
Longest Element, ft (m)	38 (11.58)
Element Ctr Dia., in (cm)	1.25 (3.18)
Turning Radius, ft (m)	19.25 (5.86)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)
Wind Load, ft^2 (m^2)	10.1 (.93)
Weight, lb (kg)	55 (25.5)

Skylog

The ASL2010 log periodic antenna is the most cost effective, high gain, five band antenna solution on the market today. Skylog offers continuous operation from 13.5 to 32 MHz. Antenna gain and beamwidth are constant for uniform coverage from 10 through 20 meters. The ASL2010 is rated for continuous duty at full legal power. Skylog is designed for maximum gain on a manageable 18 foot boom with only 10.1 square feet of wind surface area. All stainless steel hardware and rugged element design are only some of the many features that provide years of superior antenna performance. Skylog ASL2010 is the smart choice for multiband HF operation.

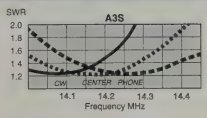
10 - 40 M WORLD RANGER MULTIBAND HF YAGIS

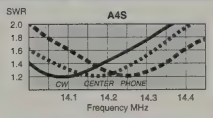
A4S Four Element Beam - 10, 15 & 20 Meters

With stainless steel hardware.
The A4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. The A4S has pinned boom sections and formed aluminum brackets to keep elements straight under all conditions. Our solid construction keeps the A4S on the tower! Add 40 meters with A744 kit.

A3S Three Element Beam - 10, 15 & 20 Meters

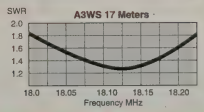
With stainless steel hardware.
The A3 World Ranger, our top selling tribander, has become the A3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with confidence. All you need is a lightweight tower and rotator to enjoy the benefits of the A3S. It's a proven performer in DX-peditions and contests and handles full power from your linear. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is at a premium, but you want the benefits of a full-size tribander, the A3S is right for you! Add 40 meters with A743 kit.

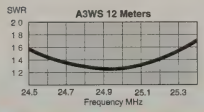




A3WS WARC Bands 3 Element - 12 & 17 Meters

Enjoy the excitement of the WARC bands with this popular beam. The A3WS gives full performance on 12 and 17 meters. With the addition of our easy-to-use A103 add on kit, it will also cover 30 meters. A3WS needs only a lightweight tower and rotator or you can mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.





MODEL	A4S	A3S	A3WS
Frequency, MHz	28, 21, 14	28, 21, 14	24, 18
No. Elements	4	3	3
Forward Gain, dBi	8.9	8.0	8.0
Front to Back Ratio, dB	25	25	25
SWR 1.2:1 Typical			
2:1 Bandwidth KHz	>500	>500	300
Power Rating, Watts PEP	2000	2000	2000
3 dB Beam Width, Deg. E Plane	58	60	60
Boom Length, ft (m)	18 (5.48)	14 (4.27)	14 (4.27)
Boom Diameter, In (cm)	2 (5.10)	1.5 (3.81)	1.5 (3.81)
Longest Element, ft (m)	32 (9.75)	27.75 (8.45)	25.1 (7.66)
Element Center Dia, in (cm)	1.25 (3.18)	1.25 (3.18)	1.25 (3.18)
Turning Radius, ft (m)	18.4 (5.49)	15.5 (4.72)	14.4 (4.4)
Mast Size Range, in (cm)	1.25-2.00 (3.18-5.08)	1.25-2 (3.18-5.08)	1.25-2 (3.18-5.08)
Wind Load, ft^2 (m^2)	5.50 (0.51)	4.36 (0.47)	4.1 (0.38)
Weight, lb (kg)	37 (16.8)	27 (12.9)	22.5 (10.2)

30 & 40 Meter Add-On Kits - For A3S, A4S & A3WS

40 meters will come alive by adding one of these kits to the dipole of your A3S or A4S. The kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit the A103.

A743 7 MHz/10 MHz kit for A3S
A744 7 MHz/10 MHz kit for A4S
A103 10 MHz kit for A3WS

MODEL	A743/A744		A103
BAND	7 MHz (40 m)	10 MHz (30m)	10 MHz (30m)
Driven Element with Adapter kit, ft (m)	33.19 min. 35.33 max. (10.12-10.77)	27.12 min. 28.4 max. (8.27-8.66)	32.1 (9.8)
Windloading ft2 (m2)	.58 (.05)	.27 (.03)	.45 (.04)
Bandwidth, KHz	125	150	250
Power Rating, Watts	2000 PEP	2000 PEP	2000 PEP
Side Rejection, dB	20	20	20
Weight, lb (kg)	3.44 (1.56)	2.29 (1.04)	3.25 (1.47)

Rotatable Dipoles

Our World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.

MODEL	D40	D4	D3	D3W
Frequency, MHz	7	28,21,14,7	28,21,14	24,18,10
SWR 1.2:1 Typical				
2:1 Bandwidth, KHz	200	>350 40>125	>500	>200
Power Rating Watts PEP	2000	2000	2000	2000
Length ft (m)	42.25 (12.88)	35.8 (10.92)	25.8 (7.86)	34.0 (10.37)
Mast Size, in(cm)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)
Wind Load, ft2 (m2)	1.3 (.12)	1.3 (.12)	.9 (.08)	.9 (.08)
Weight, lb (kg)	12 (5)	13 (6)	9 (4)	11 (5)

CUSHCRAFT CORPORATION

- Outstanding performance thanks to Cushcraft's unmatched multiband design technology and experience.
- Rugged stainless steel mounting hardware is easy to install and maintain.

A627013S 6 Meter/2Meter/70 CM

Cushcraft's newest multiband directional yagi is designed to provide hobbyists who have limited tower or mast space with directional antenna performance on three of the most popular bands. The A627013S combines 6 meters, 2 meters and 70 centimeters on one boom. Since the three antennas were designed to share a common boom, the A627013S solves the often encountered problem of degraded antenna performance due to inadequate spacing when using separates.

MODEL	A627013S		
Frequency, MHz	50-54	144-148	430-450
No. Elements	3	5	5
Forward Gain, dBi	8	10	10
Front to Back Ratio, dB	20	20	18
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>1	>4	>10
Power Rating, Watts PEP	1000	350	350
3dB Beamwidth, Degrees			
E Plane		48.5	48.5
H Plane		60	60
Boom Length, ft (m)		8.66 (2.66)	
Longest Element, in (cm)		117 (300)	
Turning Radius, ft (m)		6.16 (1.87)	
Mast Size Range, in (cm)		1.25-2 (3.2-5.1)	
Wind Load, ft^2 (m^2)		2.52 (0.23)	
Weight, lb (kg)		9.5 (4.3)	

Boom-to-Mast

Element Hardware

Big Thunder Monobander

Cushcraft's XM240 monobander utilizes rugged Big Thunder hardware that combined with high strength aluminum tubing affords the antenna outstanding wind survivability. Phillystran boom trusses are used in the XM240 design for extra boom stability. The feed system is a 50 ohm direct feed with dual driven elements. VSWR is flat across the band. A high power 1:1 balun is included. The XM240 is field-proven for reliability and performance. Excellent front to back ratio and gain makes the XM240 the right choice for DX and for stacking as well.

MODEL	XM240
Frequency, MHz	7.0 - 7.3
Number Elements	2
Forward Gain Free Space, dBi	6.0
Fwd Gain @ 1 Wavelength Ht, dBi @ 14 deg	12.5
Front to Back Ratio, dB	20-25
VSWR Typical Minimum	1.1:1
VSWR 1.5:1 Bandwidth, KHz	150
Power Rating, Watts Output	1500
3dB Beamwidth, Degrees	70
Side Lobe Attenuation, dB	>35
Boom Length, feet (m)	22 (6.7)
Boom Diameter, inches (cm)	2.5 (6.3)
Longest Element, feet (m)	43 (13.1)
Turning Radius, feet (m)	24.3 (7.4)
Max Mast Size, inches (cm)	2.5 (6.35)
Wind Surface Area, sq ft (sq m)	5.5 (.51)
Wind Load @ 80 mph, lbs (kg)	142 (64.4)
Weight, lbs (kg)	55 (25)

Some hams comment on the ARX2B:
"Since I put this antenna up I have received many compliments on the improvement of my signal." (N3LHP)

"The only antenna I ever installed that worked like it should the first time." (N7PGH)

"ARX2B is a good antenna for my use on 2 meters FM...Several on the air in my area." (N9OPL)

"ARX2B...the best antenna." (XE2CLB)

Our Ringos are Number One

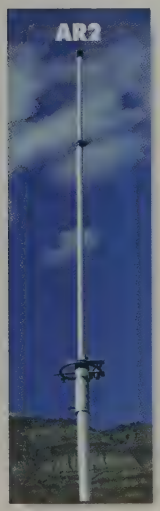
Tough performers at a good price! The Ringo family of dependable, cost-effective antennas has served more hams - from novice to veteran extra - than any other amateur antenna made. Simple, straightforward design, light weight and quick, easy installation make the durable Ringo family right for you. Ringo's top performance and low cost mean more dB per dollar - an equation anyone can appreciate.

Ringo Ranger II

Our Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area.

The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

MODEL	ARX2B	ARX220B	ARX450B
Frequency, MHz	135-160	222-225	435-450
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>3	>5	>10
Gain, dBi	7.0	7.0	7.0
Power Rating, Watts FM	1000	500	500
Radiation Angle, Deg.	7	7	7
Horizontal Radiation Pattern, Degrees	360	360	360
Ring Diameter, in (cm)	5 (12.7)	5 (12.7)	3.5 (8.9)
Radiator Base Dia, in (cm)	.75 (1.9)	.75 (1.9)	.50 (1.2)
Height, ft, (m)	14 (4.3)	9.3 (2.8)	4.9 (1.5)
Mast Size Range, in (cm)	1.0-1.25 (2.54-3.1)	1.0-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Radial Length, in (cm)	20.5 (52.1)	13.75 (33.7)	6.75 (17.1)
Wind Load, ft^2 (m^2)	0.5 (0.05)	0.3 (0.03)	0.2 (0.02)
Weight, lb (kg)	6 (2.7)	5 (2.3)	1 (.45)



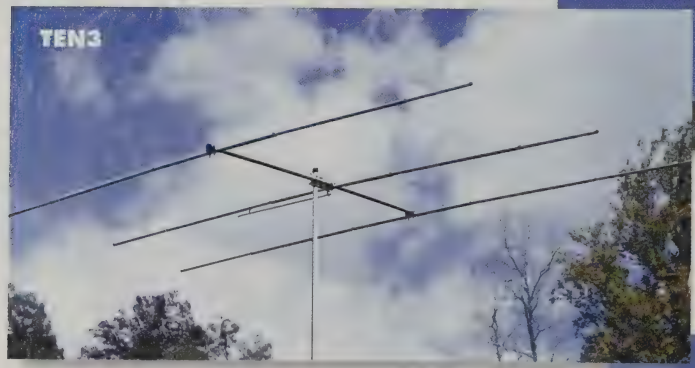
Ringo

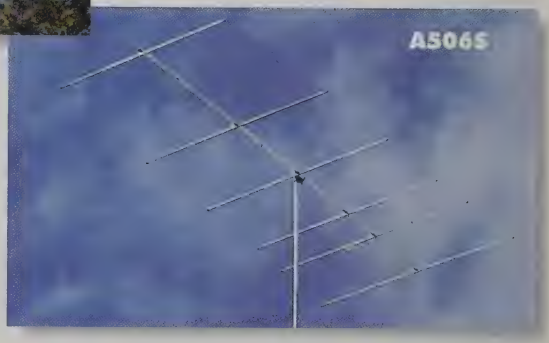
These are the original W1BX FM Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

MODEL	AR2	AR6	AR10	AR450
Frequency, MHz	135-160	50-54	28-29.7	440-460
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	10	2	>1.5	20
Gain, dBi	3	3	3	3
Power Rating, Watts FM	1000	1000	1000	500
Radiation Angle, Deg.	16	16	16	16
Horizontal Radiation Pattern, Degrees	360	360	360	360
Ring Diameter, in (cm)	5 (12.7)	13 (33)	13 (33)	3.5 (8.9)
Radiator Base Dia, in(cm)	.75 (1.9)	1 (2.5)	1 (2.5)	.5 (1.3)
Height, ft, (m)	3.9 (1.2)	10.1 (3.1)	17.6 (5.36)	1.4 (.43
Mast Size Range, in (cm)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Wind Load, ft^2 (m^2)	.21 (.02)	.37 (.03)	1.68 (.16)	.1 (.01)
Weight, lb (kg)	1.5 (.68)	2.5 (1.1)	4 (1.8)	1 (.45)

6 Meter Yagis - SSB/CW/FM

Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Cushcraft Yagis. The A503S, A505S and A506S may be mounted vertically for FM use.

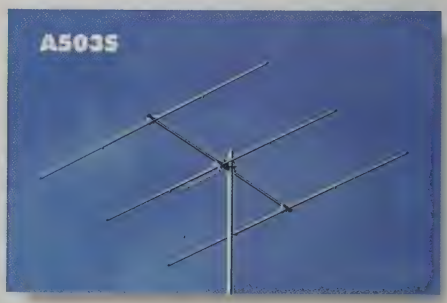




10 Meters

Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN3. Although it's popular with novices and technicians, this antenna is for any ham who wants more gain with a good front to back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-238 connector. Make more positive contacts with the TEN3.

MODEL	A503S	A505S	A506S	TEN3
Frequency, MHZ:	50-54	50-54	50-54	28-29.7
No. Elements:	3	5	6	3
Forward Gain, dBi:	8	10.5	11.6	8
Front to Back Ratio, dB:	20	24	26	25
SWR 1.2:1 Typical:				
2:1 Bandwidth, MHz:	>1	>1	>1	>1.5
Power Rating, Watts PEP:	1000	1000	1000	1500
3dB Beamwidth, Degrees				
E Plane:	76	56	48	64
Boom Length, ft (m):	6 (1.8)	12 (3.7)	20 (6.1)	8 (2.44)
Longest Element, in (cm):	117 (300)	123 (312)	119 (302)	18 (5.49)
Turning Radius, ft (m):	6 (1.8)	7.8 (2.37)	11.5 (3.5)	9.8 (3.0)
Mast Size Range, in (cm):	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)
Wind Load, ft2 (m2):	1.80 (0.17)	2.9 (0.273)	4.46 (.41)	2.0 (.20)
Weight, lb (kg):	7 (3.2)	11 (5.0)	18 (8.2)	9.9 (4.45)



BOOMER SIDEBAND/CW YAGIS

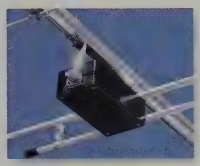
2 Meters

13B2 -13 Element Wideband Boomer

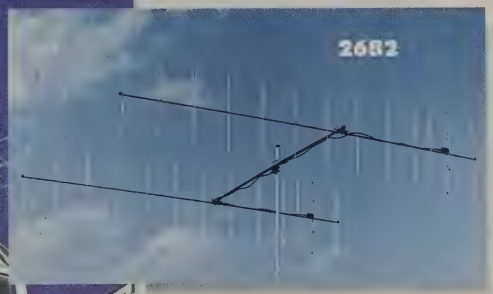
The 13B2 is as versatile as the 17B2 is specialized. 13B2 will be your choice for high performance across the entire 2 meter band. New and experienced hams will enjoy 15.8 dBi gain on FM, packet, CW, or sideband across the 4 MHz operating range. The 13B2 is easily mounted vertically or horizontally for maximum performance on your favorite mode. Its optimum boom length makes it a popular antenna that fits just about anywhere. The new UltraMatch balanced feed on the 13B2 provides a 50 Ohm match via a standard SO-239 UHF female connector. Model **13B2N** has N connector.

17B2 - 17 Element CW/SSB Boomer

The serious two meter operator who is interested in EME, aurora, scatter, SSB, CW, tropo etc, will choose the 17B2. It has 17 elements on a 4.5 wavelength boom. Our computer-aided design supported by precise test range data and the latest manufacturing technology gives you a cleaner pattern and 18 dBi gain in this long boom design. Significant enhancement is provided by the new UltraMatch balanced feed system with N-connector.



The new Cushcraft UltraMatch is a modified T-match system that provides a balanced current distribution on your Boomer. It uses UltraLink teflon® dielectric cable allowing for low loss high power applications. UltraMatch is completely enclosed for weather proofing. UltraMatch features an N-connector on the 17B2 and UHF SO239 on the 13B2. When all weather performance is important, you will choose the new UltraMatched Boomers everytime.



26B2 - 26 Element Wideband Boomer

This antenna offers the highest gain of any 2 meter FM antenna in the world. The 26B2 includes two complete 13B2 antennas, stacking boom and phasing harnesses.

124WB - 4 Element Wideband Boomer

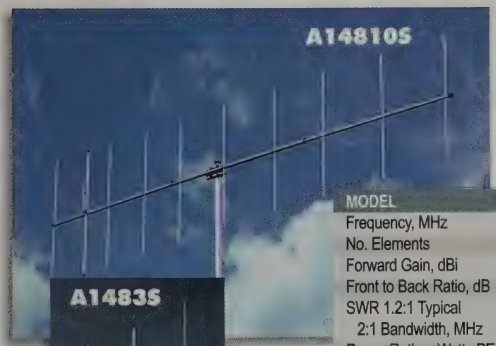
This is the right choice for packet systems and other applications requiring a dedicated directional antenna.

A14810S & A1483S 2M Yagis

These antennas are the newest computer optimized models of our 2 meter Yagis. We have improved both the pattern and gain to give you better FM coverage.

The A1483S is the low priced quality leader for Packet, FM or even portable use. It is easily rear mounted.

A14810S is one of our best value designs with excellent gain and front-to-back ratio. Use it for long range FM or full band 2 meter operation.



MODEL	13B2	17B2	124WB	26B2	A1483S	A14810S
Frequency, MHz	144-148	144-145	144-148	144-148	144-148	144-148
No. Elements	13	17	4	26	3	10
Forward Gain, dBi	15.8	18.0	10.2	18.8	7.8	13.2
Front to Back Ratio, dB	26	26	19	26		
SWR 1.2:1 Typical						
2:1 Bandwidth, MHz	>4	>2	4	>4	>5	≥4
Power Rating, Watts PEP	2000	2000	2000	2000	1000	1000
3 dB Beamwidth, Degrees						
E Plane	2 x 18	2 x 14.5	60	2x18	66	40
H Plane	2 x 19	2 x 15	88	2x9.5	108	46
Side Lobe Atten., dB, E Plane	>60	>60	40	>60		
Boom Length, ft (m)	15 (4.57)	31 (9.45)	4 (1.22)	15 (4.57)	2.8 (.85)	12 (3.6)
Electrical Wavelength	2.2	4.5	.5	2.2		
Longest Element, in (cm)	39.75 (101)	40.75 (103.5)	40.75 (104)	39.75 (101)	41 (104.1)	40.3 (102.4)
Turning Radius, ft (m)	8.9 (2.7)	17.25 (5.26)	4 (1.22)	10.4 (3.18)	2.8 (.8)	6 (1.8)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.25-2 (3.2-5.1)	1.5-2 (3.8-5.1)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft^2 (m^2)	1.8 (.17)	3.9 (.36)	.34 (.034)	4.84 (.45)	.27 (.02)	1.21 (.11)
Weight, lb (kg)	6.7 (.31)	15.75 (7.14)	3 (1.36)	21.5 (9.75)	1.5 (.7)	6 (2.7)

CUSHCRAFT CORPORATION

A14820T 2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.

224WB

220 MHz Widebands

This 222 MHz 4 element beam is perfect for Packet, FM repeaters, or sideband/CW. It can be mounted for vertical or horizontal polarization.

MODEL	224WB	A14820T
Frequency, MHZ	222-225	144-148
No. Elements	4	10/10
Forward Gain, dBi	10.2	13
Front to Back Ratio, dB	24	24
SWR 1.2:1 Typical		
2:1 Bandwidth, MHz	>5	>4
Power Rating, Watts PEP	1500	1000
3dB Beamwidth, Degrees		
E Plane	60	45
H Plane	88	50
Side Lobe Attenuation, dB E Plane	40	40
Boom Length, ft (m)	3 (.91)	11(3.4)
Electrical Wavelength	0.5	1.6
Longest Element, in (cm)	26.7 (68)	40.6 (103)
Turning Radius, ft (m)	3 (.91)	7.5 (2.3)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft^2 (m^2)	.23 (.021)	0.39(0.11)
Weight, lb (kg)	1.7 (.77)	7 (3.15)

A4496S/A44911S

Use one of these 440 MHz beams for your FM/Packet needs. Both work great for vertical or horizontal polarization.

MODEL	719B	A43011S	A4496S	A44911S
Frequency, MHz	430-450	430-440	440-450	440-450
No. Elements	19	11	6	11
Forward Gain, dBi	15.5	13.2	10.5	13.2
Front to Back Ratio, dB	25	20	18	20
SWR 1.2:1 Typical				
2:1 Bandwidth MHz	20	>10	>10	>10
Power Rating, Watts PEP	2000	350	350	350
3 dB Beamwidth, Degrees				
E Plane	24	48	60	48
H Plane	19			
Side Lobe Atten., dB, E Plane	60	40	30	40
Boom Length, ft (m)	13.5 (4.1)	4.6 (1.39)	2.9 (0.89)	4.4 (1.35)
Electrical Wavelength	6			
Longest Element, in (cm)	13.75 (34.9)	14 (35)	13 (33)	13 (33)
Turning Radius, ft (m)	7.25 (2.2)	2.8 (.85)	2.9 (.89)	2.8 (.85)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-1.5 1.25-1.5	1.25-2.0 (3.2-5.1)	1.25-1.5 1.25-1.5
Wind Load, ft^2(m^2)	1.2 (.11)	0.42 (0.04)	0.30 (0.03)	0.39 (0.04)
Weight, lb (kg)	5.6 (2.55)	4 (1.8)	3 (1.4)	4 (1.8)

719B FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The 719B joins the 2 meter 13B2 as a classic for improved performance.

Lakeview Co., Inc.

WD4BUM HAMSTICKS® Two-Piece Monoband Mobile Antennas Hamstick 75 thru 10 meter models consist of a 47 inch long x 1/2 inch diameter fiberglass base section with the loading coil wound over its length and covered with black PVC shrink tubing. It's fitted on one end with a 3/8" X 24 brass base fitting that fits most amateur mobile mounts. A black 48 inch tempered stainless steel whip telescopes into the top of the base section and provides for frequency adjustment. The 6 meter model has a 34 inch base section and whip. Convenient frequency vs length graphs are included with the instructions.

If the antenna shows a SWR of 1.5 to 1 or better, no matching should be necessary. However, if it is, which may be especially true on 40 and 75m, you can capacitively match the base using values recommended in the instructions. If you frequently change bands you can use the **WD4BUM INDUCTI-MATCH (IM-1)** which consists of an impedance matching coil that simply installs at the base of the antenna. Using the supplied clip lead, you just tap up the coil for the best match.

Models

9106 (6M)	**9110** (10M)	**9112** (12M)
9115 (15M)	**9117** (17M)	**9120** (20M)
9130 (30 M)	**9140** (40M)	**9175** (75M)

All Hamsticks ..... each **$24.99**

901 Dipole Mount for 2 Hamsticks **14.99**
IM-1 Inducti-Match **17.99**
TM-1 License Plate Mount 3/8" x 24... **44.99**
TM-1 PLUS License Plate Mount SO-239 connector..... Closeout **34.99**

ANTENNA SPECIALISTS

"ON-GLASS™" MOBILE ANTENNAS

No holes to cut! The small tuning unit attaches to glass inside the vehicle and couples capacitively through the glass to the radiating element mounted on the outside. Installs with easily-removable adhesive. Includes adhesive, 15' coaxial cable with PL-259 connector • 50W • 144-174MHz (APR-151.3), 138-150MHz (APR143) • 6MHz, tunable bandwidth • Less than 1.5:1 VSWR • 50Ω nominal impedance • Electrical 1/2-wave radiator • Shunt fed, DC ground coupling unit • 33" (APR-151.3) 23" (APR143) stainless steel, black DURACOAT™ finish whip • 15' RG-58/U cable with PL-259

APR151.3 *(left)* 2m, on-glass, 33" high.... **$69.99**
APR143 *(right)* 2m 23" cell look-alike..... **$69.99**

PAR

OMNIANGLE ANTENNAS

10/6/2M, 220, 440 MHz (fixed/mobile). Complement to high-gain directional arrays, allowing all-direction local work and monitoring. Outperform halos, loops and turnstiles! Longer than halfwave dipoles. Coupled with a unique shape, yield a horizontally-polarized antenna (pattern within 0.8dB of a circle, exhibits wide bandwidth). Rated at 150W, their built-in matchbox and current balun allow feeding with 52Ω coax. Virtually eliminates detuning due to moisture. Stackable for 3–6dB omni-directional gain and lower radiation angle.

OA-28 10m, 28–30MHz **$74.99**
OA-50 6m, 49.5–54MHz **69.99**
OA-144 2m, 138–150MHz **54.99**
OA-222 222–224MHz..... **54.99**
OA-432 420–450MHz..... **54.99**

Stacking Harnesses for Two Belden 8213 and silver/gold/teflon connects, 70cm uses N-connectors.

SK-50 for OA-50 ..... **$36.99**
SK-144 for OA-144 ..... **34.99**
SK-432 for OA-432, type-N **54.99**

SM-50 Stressed Moxon 6M Antenna Occupies approximately 1/2 the footprint of traditional two-element yagis, yet has nearly identical electrical specifications. The radiator material selection results in a further reduction in size and weight over classical Moxons. Once the coupling unit is installed onto the main radiator using two #10-32 screws, assembling the rest of the antenna, including mast mounting and tuning, requires no tools. Ideal for mountain topping, roving and stealth operation. • Horizontal polarity • Forward Gain: 5.8 dBi • F/B Ratio: 17 dB • Design Z: 50Ω unbalanced • V.S.W.R. BW: 1.5MHz between 1.5:1 points • 1kW power handling • 6061-T6 aluminum, fiberglass, genuine Flex Weave wire, stainless steel • Rectangular 84 x31", 3lbs..... **$79.99**

AOR®

LA-350 Active Shortwave Loop Two 12" diameter interchangeable antenna elements cover 3.0 to 9.0 and 9.0 to 30MHz. Rotates to enhance reception and null unwanted interference. Built-in 13.5 dB gain amplifier and tuning control to peak performance. Supplied with two elements, AC adapter, instruction manual and 20 inch cable with BNC connector.....**Milwaukee only $339.99**

ANTENEX®

Phantom® Whipless design! They don't look like antennas. Attract less attention, less vandalism and have lower wind resistance. Less susceptible to damage by trees, garages, etc. Requires NMO mount.

TRAB-1420 VHF Covers 142-164MHz (tunable), Black radome is 3.30 in. high. Unity gain . **$59.99**

TRAB-4303 UHF Covers 430-450MHz. Black radome is 3.30" high. 3dB gain **$29.99**

BB-1443 VHF Wideband Antenna Base loaded 5/8 wave. Covers 144-174 MHz, 3 dB gain, 49 in. tapered whip. Requires NMO mount. (Black) **$39.99**

CWB-4405C UHF Wideband, Self Tuning Closed coil collinear. 440-470 MHz, 5dB gain, 32-1/8" tapered whip. Requires NMO mount. (Black) **$49.99**

CWB-1443 VHF 5/8-Wave Broadband, Self Tuning 144-156MHz, 3.0 dB, 47" tapered whip. (Black).. **$49.99**

BB-1442N Broadband, 5/8-Wave No Ground Plane Base loaded, 144-174 MHz, 2.4dB, 49" tapered whip .**$39.99**

BB-4303 UHF 5/8-Wave Covers 430-450MHz, 3dB gain, 11.81" straight whip. Requires NMO mount. (Black)..... **$34.99**

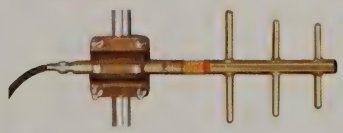
AB-FT Broadband 1/4-Wave Tunable 118-896 MHz, unity gain, NMO..... **$16.99**

AB-SCANC Scanner Antenna Closed coil collinear for 150/450/800MHz receive only. Requires NMO mount. (Black) **$29.99**

CB-144/440C Dualband VHF/UHF Closed coil, 36", collinear covers 144-148, 440-450MHz, 2/5dB, 200W. Requires NMO mount. (Black)..... **$49.99**

GPS ANTENNA

GPSU-15GBNC GPS Antenna Low profile magnetic base GPS antenna with 14 ft. RG-174/U coax and BNC connector **$99.99**



GOLD-ANODIZED, WELDED DIRECTIONAL YAGIS

Computer optimized and internally matched - wide bandwidth no tuning. End-of-boom N connector feed with an internal transmission line feeding the driven element.

Y-1363 3-Element VHF Covers 136-150MHz, 7.1 dBd, 17 dBd front-to-back ratio. Rated for 500W. Mounts on mast up to 2" diameter **$119.99**

Y-4303 3-Element UHF Covers 430-450MHz, 7.1 dBd gain, 17 dB front-to back ratio. Rated for 300W. Mounts on mast up to 1-5/8" diameter **$99.99**

DIAMOND ANTENNAS

The Standard By Which All Others Are Judged.

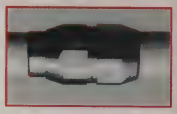
Acclaimed as the technological leader in single & multiband antennas

• Wide-band Performance • Factory Adjusted–No Tuning Required • Highest Gain
• UPS Shippable • High Wind Rating • Fiberglass Radome • DC Grounded • Stainless Hardware

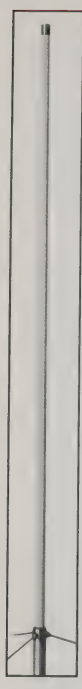
X500HA (UHF-Conn.)
X500HNA (Type-N Conn.)
Ruggedized Base/Repeater Antenna

COAX CONNECTION AT BASE END

HEAVY DUTY BASE/ RADIAL ASSEMBLY



STRONG JOINT COUPLINGS



X50NA

X500HNA

X50NA

The X50NA is an excellent choice where ruggedness is required in a medium–gain, dual-band, base/repeater application.

Features

- Wide frequency bandwidth
- Heavy duty fiberglass radome
- Stainless steel mounting hardware and radials
- Type–N Cable connection
- Compact size for easy mounting/installation

Specifications:

Freq.: 2m: 144–148MHz
70cm: 440-450MHz
Gain: 2m: 4.5dB; 70cm: 7.2 dB
Power: 200 watts
Wind Rating: 135 MPH (no ice)
Height: 5.6 feet

X500HNA

Diamond Antenna's best base station repeater antenna. Designed for strength and performance, the X500HNA is pretuned to achieve maximum gain in both the 2m and 70cm amateur bands.

Features

- Heavy duty fiberglass radome
- Overlapping outer shells for added strength
- Stainless steel mounting hardware and radials
- Strong, waterproof joint couplings
- Type–N Cable connection
- Wide band performance

Specifications:

Freq.: 2m: 144–148MHz 70cm: 440-450MHz
Gain: 2m: 8.3dB; 70cm: 11.7 dB
Power: 200 watts
Wind Rating: 90 MPH (no ice)
Height: 17.8 feet

A502HB

A504HB

A14455

NOTES:

1. Heavy duty aluminum construction.
2. X510NJ: 144-147/430-440MHz.
3. 1/4λ, rated in dBi.
4. 2m: 146-148; 100 watts
5. 52-54MHz. only

BAND: 144=144-148MHz., 222=222-225MHz., 420=420-430MHz.,430=430-440MHz., 440=440 450MHz., 1240=1240-1300MHz.

DIAMOND Mono-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
CP22E [1]	144	6.5	200	UHF	9.0	70
DPGH62 [1]	50	6.0	200	UHF	21.0	78
F22A	144	6.7	200	UHF	10.5	112
F23A	144	7.8	200	UHF	15.0	90
F718A	440	11.5	250	N	15.0	90
G200	2.4GHz	11 dBi	–	N	4.8	135

DIAMOND Dual-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
X50A	144/440	4.5/7.2	200	UHF	5.6	135
X50NA	144/440	4.5/7.2	200	N	5.6	135
X200A	144/440	6.0/8.0	200	UHF	8.3	112
X510NA [2]	144/440	8.3/11.7	200	N	17.2	90
X510MA	144/440	8.3/11.7	200	UHF	17.2	90
X500HNA	144/440	8.3/11.7	200	N	17.8	90+
X700HNA	144/440	9.3/13.0	200	N	24.0	90
U200	440/1240	8.3/11.7	100	N	5.9	135

DIAMOND Tri-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
V2000A [3,5]	52/144/440	2.1/6.2/8.4	150	UHF	8.3	110
X3200A [4]	146/222/440	6.0/7.8/8.0	100/200	UHF	10.5	112
X6000A	144/440/1240	6.5/9.0/10.0	100/60	N	10.5	112

Most requirement: 1.4"-2.4"

DIAMOND Yagi Antennas

MODEL	BAND (MHz)	GAIN (dBi)	WATTS (PEP)	CONN.	BOOM LNTH.	ELEMENT PHASING
A502HB	50	6.3	400	UHF	2.6'	2 element
A504HB	50	10.8	400	UHF	10.7'	4 element
A144S5	144	9	100	UHF	37.5"	5 element
A430S10	432	13	100	UHF	43"	10 element
A430S15	432	14.8	100	UHF	89"	15 element

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DIAMOND'S STATE-OF-THE-ART

DIAMOND ANTENNA

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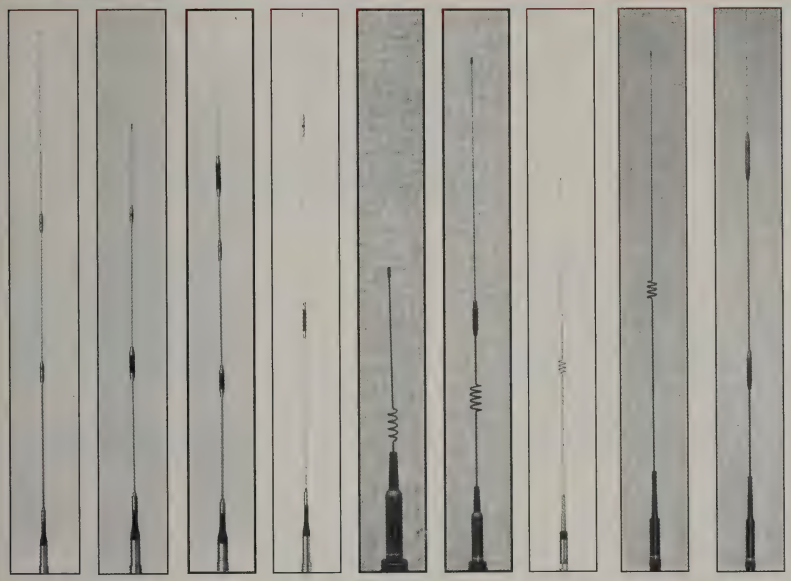
You've seen the rest...now own the BEST!



SG2000HD | SG7500A SG7500NMO | SG7900A SG7900ANMO | SGM911 | NR72BNMO | NR73BNMO | NR770HA NR770HB | NR770HNMO NR770HBNMO | CR627B CR627BNMO

HV7A Mobile Antenna System

For New HF/VHF transceivers

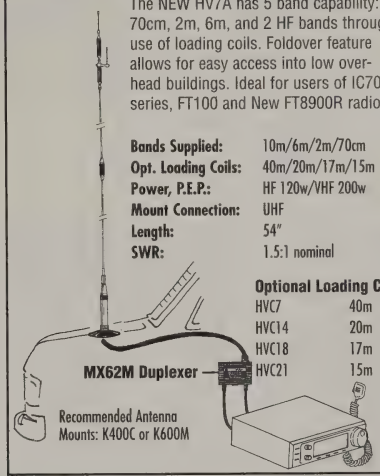
(Such as: IC706 series, FT100 & NEW FT8900R)

The NEW HV7A has 5 band capability: 70cm, 2m, 6m, and 2 HF bands through use of loading coils. Foldover feature allows for easy access into low overhead buildings. Ideal for users of IC706 series, FT100 and New FT8900R radios.

Bands Supplied:	10m/6m/2m/70cm
Opt. Loading Coils:	40m/20m/17m/15m
Power, P.E.P.:	HF 120w/VHF 200w
Mount Connection:	UHF
Length:	54"
SWR:	1.5:1 nominal

Optional Loading Coils

HVC7	40m
HVC14	20m
HVC18	17m
HVC21	15m



MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
MR77	2m/70cm	2.15/3.4	70	MAG	20	1/4λ, 1/2λ
MR77SMA	2m/70cm	2.15/3.4	70	MAG	20	1/4λ, 1/2λ
NR72BNMO*6	2m/70cm	2.15	100	NMO	13.8	1/4λ, 1/2λ
NR73BNMO	2m/70cm	2.15/5.3	100	NMO	33.5	1/2λ, 1-5/8λ
NR770HA7	2m/70cm	3.0/5.5	200	UHF	40.2	1/2λ, 2-5/8λ
NR770HNMO8	2m/70cm	3.0/5.5	200	NMO	38.2	1/2λ, 2-5/8λ
NR770RA	2m/70cm	3.0/5.5	200	UHF	38.6	1/2λ, 2-5/8λ
NR7900A*	2m/70cm	3.7/6.4	300/250	UHF	57	1/4+1/2λ, 3-5/8λ
SG7000A*6	2m/70cm	2.15/3.8	100	UHF	18.5	1/4λ, 6/8λ
SG7500A	2m/70cm	3.5/6.0	150	UHF	40.6	1/2λ, 2-5/8λ
SG7500NMO	2m/70cm	3.5/6.0	150	NMO	41.0	1/2λ, 2-5/8λ
SG7900A*	2m/70cm	5.0/7.6	150	UHF	62.2	7/8λ, 3-5/8λ
SG7900ANMO*	2m/70cm	5.0/7.6	150	NMO	62	7/8λ, 3-5/8λ
SGM510	2m/70cm	2.15/5.5	100	UHF	37	1/2λ, 2-5/8λ

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
CR8900A*6, 11	10m/6m/2m 70cm	2.1 (2m) 5.5 (70cm)	60	UHF	50	1/4λ, 1/4λ 1/2λ, 2-5/8λ
SG2000HD*	2m	5.2	250	UHF	62.6	1/2λ+3/8λ
CR320A*6	2m/1-1/4m 70cm	2.15/3.8 5.5	200/100 200	UHF	37.4	1/4λ, 1/2λ 2-5/8λ
CR627B*6,9 CR627BNMO*6,9	6m/2m 70cm	2.1/4.5 7.2	120	UHF/NMO	60	1/4λ, 1/2+1/4λ 2-5/8λ
HF6FX*6	6m	2 dBi	250	UHF	40	1/4λ
HF50CX*6	6m	3.5 dBi	200	UHF	75	3/8λ
NR22L*	2m	6.5	100	UHF	96.8	2-5/8λ
NR2000NA	2m/70cm 23cm	3.15/6.3/9.7	100	N	39	1/2λ, 2-5/8λ 5-5/8λ
M285*10	2m	3.4	200	UHF	52.4	5/8λ
M685*6	6m	2.15 dBi	200	UHF	52.4	1/4λ
MG200	2.4GHz	7 dBi	-	N	23.6	3-1/2λ
SGM911*6,9	6m/2m/70cm	2.15/3/5.8	60	UHF	41	1/4λ, 1/2λ,2-5/8λ
NR124	23cm	8.4	100	N	25	4-5/8λ

* Not recommended for Magnet Mount
6 Grounding required
7 NR770HB same specs but in black finish.
8 NR770HBNMO same specs but in black finish.
9 52-54MHz only
10 Tunable from 140-174MHz
11 FM only
1/4λ. rated in dBi.

FOLD-OVER

Patented One-Touch Fold-Over Feature.
(Not available on M285, M685, MG200, MR77, MR77SMA, NR72BNMO & NR73BNMO)

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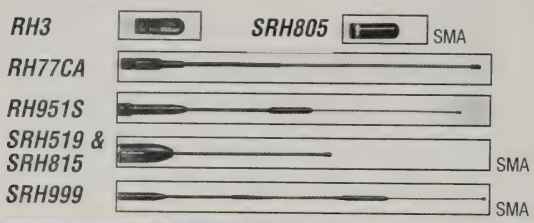
DIAMOND Antenna Accessories

High Efficiency HT & Scanner Antennas
HF Multiband Vertical Antenna
Duplexers & Triplexers
Dummy Loads & Coaxial Switches

RH and SRH Series

High quality, high gain HT antennas for mono, dual, and tri-band handheld radios. Available in both BNC and SMA connections. Increase the performance on your handheld or wideband scanner with a Diamond RH or SRH Series antenna.



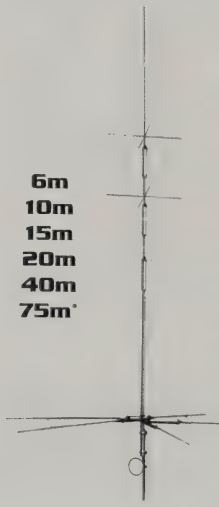
MODEL	DESCRIPTION	RELATIVE GAIN*
RH3	2m/70m dual band "Black Bullet" HT antenna. 1.75" BNC. 120 to 900 receive	-2 dB
RH77CA	High gain 2m/70cm dual band HT antenna. Receive range to 900 MHz. BNC.	+6 dB
RH205	2m HT antenna, telescopic, 5/8λ fully extended, 47.5"; 1/4λ retracted, 9"	+9 dB
RH519	2m/70cm slim dual-band HT antenna. Flexible. 8" BNC, 10 watts.	+3 dB
RH707	2m/70cm dual-band -tiltable whip – HT antenna. 8 1/4" BNC.	+3 dB
RH951S	High gain 2m/70cm/23cm slim tri-band HT antenna. Flexible. BNC (Wide band receive)	+6 dB
SRH77CA	High gain 2m/70cm dual band flexible HT antenna. 15" SMA, 10 watts.	+6 dB
SRH320A	2m/1-1/4m/70cm tri-band HT antenna. Flexible. SMA. 10 watts.	+3dB
SRH519	2m/70cm dual-band HT antenna. Flexible. 8" SMA, 10 watts.	+3 dB
SRH805	2m/70cm/23cm tri-band HT antenna. 1.75" SMA, 10 watts.	-2 dB
SRH815	2m/70cm/23cm tri-band HT antenna. Flexible. 6" SMA, 6 watts.	+3dB
SRH999	6m/2m/70cm/23cm quad-band HT antenna. Flexible. 19.5" SMA, 10 watts.	+3dB

*Rated against typical stock HT antennas

CP6A HF MULTIBAND VERTICAL

The New CP6A multi-band trap-vertical antenna for HF bands, covering the 75*, 40, 20, 15, 10 and 6m amateur bands. Made from heavy-duty aluminum, the CP6A assembles easily, yields excellent performance and reliability from a compact base station antenna. Its compact size allows for many mounting options. Minimum 15 feet diameter required for mounting radials. No additional ground radials required. Mounting hardware included.

*75m requires a tuner.



Specifications

Frequency:	75*/40/20/15/10/6m	
Power:	200w PEP	
Impedance:	50Ω	
VSWR:	1.5:1 nominal	
Element:	1/4 wave trap vertical	
Radials:	Trap design, six	
Grounding:	Direct grounding. Antenna element & radials connected to mounting pipe.	
Max. Wind Rating:	80mph (no ice)	
Mast Diameter Accatance:	1.2-2.4"	
Overall Length:	15.10' (4.6m)	
Weight:	9.9lbs. (4.9kg)	
Connector:	SO-239 female UHF	
Bandwidth: (for nominal 1.5:1 VSWR without antenna tuner)	75m	20kHz
	40m	40kHz
	20m	100kHz
	15m	200kHz
	10m	500kHz
	6m	3.5MHz

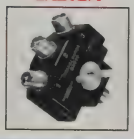
MX-72D

MX-72H/N

DL30A/DL30N

CX210A/CX210N

CX310A



MODEL	DESCRIPTION
CA23RS	Lightning surge protector, DC-2500 MHz, 200W Type-N (F)
CA23RW	Lightning surge protector, DC-2500 MHz, 200W Type-N (F) Waterproof.
CX210A	Heavy duty wideband coax switch, DC-1000 MHz. 1.5 kW, SO-239
CX210N	Heavy duty wideband coax switch, DC-1500 MHz. 1.5 kW, Type N
CX310A	Heavy duty wideband coax switch, 3 position, DC–800MHz, SO–239
DL30A	Dummy load, DC-500 MHz. 15w average/100w peak. PL-259
DL30N	Dummy load, DC-500MHz. 15w average/100w peak. Type N

Duplexers/Triplexers

MODEL	MX72D	MX72H	MX72N	MX2000			MX62M	
FREQUENCY BAND (MHz)	LPF 1.6-30	140-150	HPF 400-460	LPF 1.6-60	BPF 110-170	HPF 300-950	LPF 1.6-56	HPF 76-470
PWR CW (ICAS) WATTS P.E.P.	400 1000	150 400	100 250	800	800	500	600	
THRU LOSS/dB	0.15	0.15	0.25	0.15	0.2	0.25	0.2	0.3
ISOL	60dB			60dB			50dB	
VSWR	1.2:1			1.2:1			1.2:1	
CONNECTOR COMPLEMENT	M MIX 144 430 M M	M MIX 144 430 M M	M MIX 144 430 M N	M MIX 50 144 430 M M M			M MIX HF VHF M M	
CONNECTOR	Direct	12" Cable w/Connectors		12" Cable w/Connectors			12" Cable w/Connectors	

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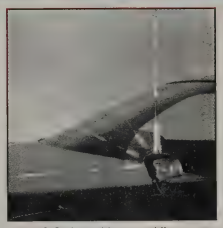
DIAMOND'S Premium Antenna Mounts & Cable Assemblies

Designed for today's high performance antennas

K9000
Motorized Mount

Raise and lower your antenna with a touch of a button. Vertical adjustment 0-9º. Accepts "ground independent" antennas up to 45". Recommended antennas: SG7500NMO, NR73BNMO, SG7500A, NR2C and NR770 series.

K9000TM Trunk/Hatchback Mount
K9000LRM Luggage Rack Mount



** Use C-Series cable assemblies.*

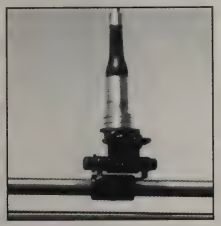
[1] Includes SMA to UHF adapter.

K400
Heavy Duty Hatchback/ Door/Truck Lid Mount

Diamond's deluxe heavy duty mount. Two-axis adjustable. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

K400C* SO-239 base, 6.5' coax & PL-259
K400CNMO* NMO base, 6.5' coax & PL-259
K400-3/8C* 3/8X24 base, 6.5' coax & PL-259
K400S[1] SO-239 base, 13.5' coax & SMA
K400SNMO[1] NMO base, 13.5' coax & SMA

** Use C110 for front radio installations.*
[1] Includes SMA to UHF adapter.



K601
Hide-Away Mount

Folds antenna safely into trunk. Fully adjustable, fits most vehicles. Recommended antennas: NR2C, NR73BNMO, NR770HNMO, NR770HA, NR70HBNMO, NR770HB, NR770RA, SG7500A, SG7500NMO and SGM510.

K601M SO-239 base, 6.5' coax & PL-259
K601NMO NMO Base, 6.5' coax & PL-259

K600
Variable Angle Trunk Mount

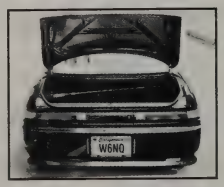
Deluxe aerodynamic trunk mount. Vertical adjustment 0-9º. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

K600M SO-239 base, 16.5' coax & PL-259
K600S[1] SO-239 base, 13.5' coax & SMA

K540
Mirror/Luggage Rack Mount

Adjustable Mirror/Luggage rack mount accepts 1/2" to 7/8" tubing. Fits most mirrors and utility racks. Recommended for antennas under 45".

K540KM SO-239 base, 13' coax & PL-259
K540 Mount Only

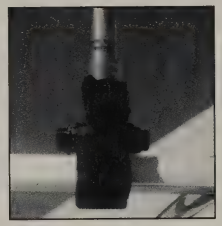


** Use C110 for front radio installations.*

K515
Universal Luggage Rack Mount

Ideal for new SUV luggage racks; accepts 3/4" to 2-1/4" in height and up to 2-1/4" wide. Two axis adjustable mount for light-weight VHF/UHF antennas under 45", not requiring RF ground.

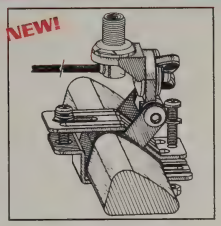
K515S[1] SO-239 base, 13.5' coax & SMA
K515SNMO[1] NMO base, 13.5' coax & SMA



K412
Deluxe Hatchback/Door/ Trunk Lid Mount

Two-axis adjustable mount for light weight antennas. 1.5 inch mounting width. Ideal for tight mounting options. Recommended for antennas under 45".

K412C SO-239 base, 6.5' coax & PL-259
K412CNMO NMO base, 6.5' coax & PL-259
K412S[1] SO-239 base, 13.5' coax & SMA
K412SNMO[1] NMO base, 13.5' coax & SMA



[1] Includes SMA to UHF adapter.

K550
Luggage Rack Mount

Adjustable luggage rack mount for new mini vans. Recommended for antennas under 45".

K550KM SO-239 base, 13' coax & PL-259
K550 Mount Only

** Use C110 for front radio installations.*
[1] Includes SMA to UHF adapter.

C-SERIES CABLE ASSEMBLIES

C101
SO-239 base, 6.5' RG316 Teflon coax & PL-259. Ideal cable assembly for trunk mount radios.

C101NMO
Same as C101 with NMO base. For Diamond's K-Series mounts.

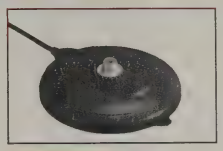
C213
Same as C101, 13.5' length.

C213NMO
Same as C101NMO, 13.5' length.

C110
Extension for C101. 10' RG8X coax w/mini UHF Conn. Use C110 to extend cable for front radio installations.

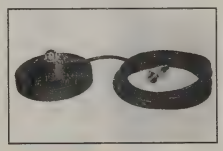
C110BNC
10' assembly similar to above, uses RG316 Teflon coax terminating in BNC-male.

C110SMA
Similar to C110BNC, terminating in SMA male.



K702M
Magnet Mount Base

Deluxe low profile magnet mount with high holding power. Aerodynamic styling, large 6 3/8" dia., 3/4"h. For VHF/UHF antennas up to 50"h. Includes thin mylar protective sheet to enhance grip and protect paint. Cable: 13' RG58A/U & PL-259.



SPM35
Magnet Mount Base

Heavy duty 2.2 lb./4" magnet mount rated 25-500 MHz. Cable: 13' coax and PL-259. Recommended for antennas under 45".

SPM-NMO
Magnet Mount Base

Similar to the SPM35, but has NMO mount.

C211
SO-239 base, 16.5' cable assembly & PL-259. Combination of C101 & C110.

C104SMA
4' extension cable for HT's with SMA connector. For existing cable assemblies with PL-259. UHF female (SO-239) to right angle SMA male.

C105SMA
5' extension cable for C101. RG58/U cable, terminating in right angle SMA male.

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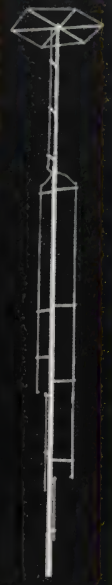
GAP: THE PERFECT ANTENNA

We at GAP realize there isn't a perfect antenna. No singular antenna will scream DX on 80 and be the best for local nets on 10. If anyone tells you there is, beware! The perfect antenna does not exist, but the right one for you may. If you want something to bust the pile on the low bands, then consider the Voyager. Just starting out in ham radio and need a great general coverage antenna, the Challenger is easy to assemble and for little effort will yield superior performance, especially on DX. Maybe you knowingly or unknowingly moved into one of those "restricted areas" where the Eagle's limited visibility, but unlimited ability is desired.

Eagle DX

Challenger DX



Voyager DX

This chart helps you select the right GAP antenna. When comparing GAPs, bandwidth is not a concern. With few exceptions, a GAP yields continuous coverage under 2:1 for the **ENTIRE BAND**.

All antennas utilize a GAP elevated asymmetric feed. A major benefit is the virtual elimination of the earth loss, so more RF radiates into the air instead of the ground. This feed is why a GAP requires **NO RADIALS**. Just as elevating a GAP offers no significant improvement to its performance, adding radials won't either, making set up a breeze.

A GAP antenna has no traps, coils or transformers. This is important. The greatest sources of failure in multiband antennas are these devices. Perhaps you heard someone discuss a trap that had melted, arced or became full of water. Improvements to these inherent problems are the focus of the antenna manufacturer, while the basic design of the antenna remains unchanged. **GAP improved the trap by eliminating it!** Removing these devices means they don't have to be tuned and, more importantly, won't be detuned by the first ice or rain. The absence of these devices improves antenna reliability, stability and increases bandwidth.

Another major advantage to a GAP antenna is its NO tune feature. Screws are simply inserted into predrilled holes with a supplied nutdriver.

The secret is out and people in the know say:

CQ–"The GAP consistently outperformed base-fed antennas. ..and was quieter."

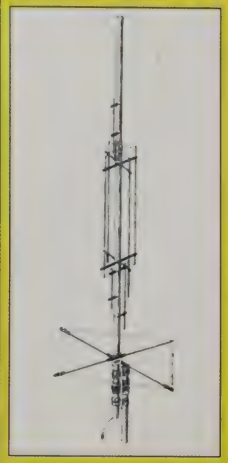
73–"This is a real DX antenna, much quieter than other verticals."

RF–"To say this antenna is effective would be a real understatement. Switching back and forth on 40m between another multiband HF vertical and the GAP, there was no comparison. Signals were always stronger on the GAP, sometimes by S units, not just DB's."

Worldradio – "These guys have solved the problem associated with verticals. That is, an awful lot of RF is wallowing around and dropping into the dirt instead of going outward bound. A half-wave vertical does need radials if it is end fed (at the bottom). But the same half-wave vertical does not (as much, hardly at all) if is fed in the center."

IEEE–"Near field and power density analyses show another advantage of this antenna (asymmetric vertical dipole): it decreases the power density close to the ground, and so avoids power dissipation in the soil below it. The input impedance is very stable and almost independent of ground conductivity. This antenna can operate with high radiation efficiency in the MF AM standard broadcast band, without the classical buried ground plane, so as to yield easier installation and maintenance."

Latest Release: **TITAN DX**



This all purpose antenna is designed to operate 10m-80m, WARC bands included. It sits on a 1-1/4" pipe and can be mounted close to the ground or up on a roof. Its bandwidth and no tune feature make it an ideal antenna for the limited space environment as well as a terrific addition to the antenna farm.

MODEL	BANDS OF OPERATION											HT	WT	MOUNT	COUNTER-POISE
	2m	6m	10m	12m	15m	17m	20m	30m	40m	80m	160m				
Challenger DX	■	■	■	■	■		■		■	■		31.5'	21 lbs	Drop In Ground Mount	3 Wires @ 25'
Eagle DX			■	■	■	■	■		■			21.5'	19 lbs	1-1/4" pipe	80" Rigid
Titan DX			■	■	■	■	■	■	■	■		25'	25 lbs	1-1/4" pipe	80" Rigid
Voyager DX							■		■	■	■	45'	39 lbs	Hinged Base	3 Wires @ 57'

GAP

ANTENNA PRODUCTS, INC.
99 N. Willow Street
Fellsmere, FL 32948
tel: (772)-571-9922
web: gapantenna.com

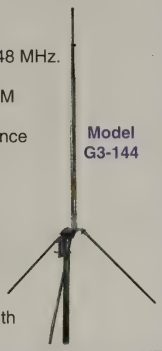
TO ORDER, CALL AES...
1-800-558-0411

*See Price List for **GAP** Quick-Tilt Mounts, Counterpoise and Guy Kit Prices*

HUSTLER®

Model G3-144

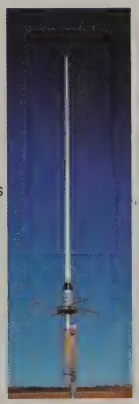
The G3-144 is the newest addition to the Hustler Base Station line. Designed with the cost conscious amateur in mind, this small, inexpensive antenna delivers more gain than other antennas in its price range. Ideal for a home or emergency command post


Model G3-144

ELECTRICAL
- Frequency Range: 144-148 MHz.
- Gain: 3 dB
- Maximum Power: 1 KW FM
- Bandwidth: 4 MHz
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: SO-239
- Length: 7' 5"
- Weight: 2.0 lbs
- Wind Survival: 100 mph.
- Wind Area: 0.5 ft.²
- Mounting: 1 to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Model G6-270R
Dual band
2 Meter & 440 MHz


G6-270R

ELECTRICAL
- Frequency range: 144-148 MHz, 435-455 MHz.
- Gain: 6 dB
- Maximum power: 100 Watts
- Bandwidth: 4 MHz – 2 Meters 10 MHz – 440 Meters
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: N female
- Length: 7' 6"
- Weight: 5.3 lbs.
- Wind Survival: 100 mph
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: one piece radome

Model G6-440 (see photo above)

ELECTRICAL
- Frequency range: 440 - 450 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 10 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: Type N female
- Length: 7' 3"
- Weight: 5.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: one piece radome

VHF and UHF Omni Directional Fixed Station Vertical Antennas

Model G7-144
Two Meter

The G7-144 is totally self supporting and is easily assembled. When disassembled the longest part is approximately 4' which makes it easy to handle and ship via UPS.

ELECTRICAL
- Frequency Range: 144 - 148 MHz.
- Gain: 7 dB
- Maximum Power: 1 KW FM
- Bandwidth: 4 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: N female
- Length: 15' 4"
- Weight: 10.0 lbs.
- Wind survival: 100 mph
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Model G6-144B
Two Meter (see photo above)

ELECTRICAL
- Frequency range: 143 - 149 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 6 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: SO-239
- Length: 9' 9"
- Weight: 6.8 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Model G7-220 (see photo above)

ELECTRICAL
- Frequency range: 220 - 225 MHz.
- Gain: 7 dB
- Maximum power: 1 KW FM
- Bandwidth: 5 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

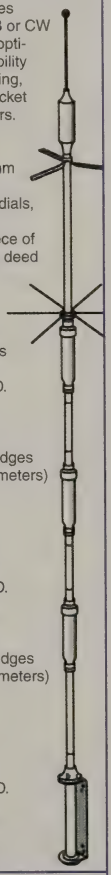
MECHANICAL
- Termination: Type N female
- Length: 10' 2"
- Weight: 7.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Fixed Station Multi-Band HF Vertical Antennas

Our exclusive trap design offers the lowest loss possible. A special extrusion process allows us to produce trap covers to an otherwise unattainable close tolerance, assuring accurate and permanent resonance. Our highly accurate traps provide top signal reports and consistent contacts.

Accurate tuning is made possible by the wide range of tuning flexibility designed into our verticals. Not only can you use the normal adjustable tubing to change resonance, but the traps themselves can be field tuned for an additional 2 MHz. shift. This flexibility will enable you to achieve a good S.W.R. even if your installation is not ideal.

- Broadbanded – low VSWR at band edges
- Power capability – full legal limit on SSB or CW
- Solid one inch fiberglass trap forms for optimum electrical and mechanical stability
- Heavy wall, high strength aluminum tubing, heavy duty aluminum mounting bracket and low loss, high strength insulators.
- Stainless steel clamps and hardware.
- Easy assembly and tuning.
- Single line feed with any length of 50 ohm coax.
- Use as ground mount with or without radials, or elevated mount with radials.
- All of the BTVs can be mounted in a piece of PVC and disguised as a flagpole in deed restricted neighborhoods.



Model 6-BTV

Bands 10-15-20-30-40 & 75 or 80 meters
Length/weight 24 ft. / 16.5 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

Model 5-BTV

Bands 10-15-20-40 & 75 or 80 meters
Length/weight 25 ft. 1 in. / 16.5 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

Model 4-BTV

Bands 10-15-20-40 meters
Length/weight 21 ft. 5 in. / 15 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 28 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 1.6:1 at band edges

Model 30-MTK

30 meter add on kit for the 4 and 5 BTV

The Spirit Series

Hustler's ominidirectional, collinear design base station antennas are enclosed in a rugged fiberglass radome that will help minimize pattern variations due to high winds or extreme conditions. We offer these antennas in 144, 220, 440, 900 MHz and 1.2 Ghz. The gain will be unity, 3,6,9, or 12 dB depending on the frequency. Custom frequencies available, call AES for a quote.

www.new-tronics.com

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563

Phone: **940.325.1386**
Toll Free: **877.994.9499**
Fax: **940.328.1409**

VHF and UHF Mobile Antennas

Unity Gain

THF

VHF/UHF Trunk Lip Mount Antennas.

- Frequency range: 140-500 MHz
- ¼ wave length
- Cut length for low VSWR
- 15 ft RG58/U with PL-259 connector

UHT-1

VHF/UHF Roof/Deck Hole Mount Antenna.

- Frequency range: 140-500 MHz
- ¼ wave length
- Cut length for low VSWR
- 15 ft RG58/U

UGM

VHF/UHF Magnetic Mount Antenna

Extend the range of handheld or portable radios. Trimmable 17-7 PH stainless steel radiator is cut to ¼ wavelength for low SWR and unity gain from 140 to 500 MHz. Trim chart included. Highly efficient mylar protected magnetic mount attaches conveniently to magnetic compatible surfaces. No drilling! Supplied ready for operation with 10 ft. of mini-coax with BNC connector

MKR-2 Radial Kit

Used to convert RX, SF & CG series coils to fixed station operation. Mount can accept any 3/8x24 threaded coil and contains three radials

MKR-2

Collinear Series Fed Mobile Antennas

SF-2 144 MHz 3.4 dB
SF-220 220 MHz 3.4 dB

- Power rating: 100 watts
- 3/8" x 24 thread
- 5/8 wave

RX-2 144 MHz 3.4 dB
RX-220 220 MHz 3.4 dB
RX-440 440 MHz 5.0 dB

- Coil same as above
- 3 oz magnet
- 15 ft RG-58/U coax
- PL-259 connector

Collinear High Gain Mobile Antenna

CG-144 5.2 dB 6 MHz Bandwidth
CG-220 5.2 dB 4 MHz Bandwidth

- Power rating: 200 watts
- 3/8"x24 thread
- 5/8 over ¼ wave
- Collinear design

CGT-144 5.2 dB 6 MHz Bandwidth
CGT-220 5.2 dB 4 MHz Bandwidth

- Coil same as above
- Swivel ball for vertical positioning
- Quick disconnect for easy removal
- Trunk mount base
- 17 ft RG58/U coax
- PL-259 connector

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563

MX Series NMO Magnetic Mount Antenna

MX-2 144 MHz 3.4 dB
MX-220 220 MHz 5.0 dB
MX-440 440 MHz 5.0 dB

- Power rating: 200 watts
- Chrome top
- NMO style coil
- 10 oz magnet
- 17 ft RG58/U coax & PL-259 connector

MX-2B 144 MHz 3.4 dB
MX-440B 440 MHz 5.0 dB

- Same as above but all black coil

BBG Series NMO Swivel Ball & Spring Antenna

BBG-144 3.4 dB
BBG-440-5 5.0 dB

- Power rating: 200 watts
- NMO style coil
- Chrome top, swivel ball and spring

BBGT-144 3.4 dB
BBGT-440-5 5.0 dB

- Same coil as above
- Includes Trunk mount
- 17 ft RG58/U coax & PL-259 connector

Dual Band 2 meter/ 70cm Mobile Antennas

Hustler's new Dual Band antennas are designed to perform even in the toughest environments. Base coils are ultrasonically welded to ensure mechanical integrity and durability.

LMC-270

- 2.4 dB/4.0 dB gain
- Power rating: 100 watts
- NMO style coil
- Coil and whip only

MX-270

- 2.4 dB/4.0 dB gain
- Power rating: 100 watts
- NMO style magnetic mount
- 17 ft RG58/U coax & PL-259 connector

LM Series NMO Coils

LMG, LMC AND LMB Antennas are coil & whip only and require an NMO mount.

LMG-144 3.4 dB gain
LMG-440-5 5.0 dB gain

- Power rating: 200 watts
- NMO style coil
- Chrome top and bottom
- Contact-silver plated push pin

LMC-144 3.4 dB gain
LMC-440-5 5.0 dB gain

- Power rating: 200 watts
- NMO style coil
- Black coil with chrome top

LMB-144 3.4 dB gain
LMB-440-5 5.0 dB gain

- Power rating: 200 watts
- NMO style coil
- Black coil

HUSTLER®

Scanner Base Station Antenna

Hear more at a greater distance with Hustler's external omnidirectional scanner antennas.

DCX

- 40 – 950 MHz
- Vertically polarized
- Mounts to 1 ¼" OD mast or flat surface
- 55" cone elements
- 20" disc elements
- Solid aluminum rod for high strength design
- Hardware & mount included

DCL

- Same as DCX
- 50 ft RG58/U coax with PL-259 on one end and BNC or Pin plug on the other end

Mobile Scanner Antenna

Hear all of the action in your car. Covers 30-50, 148-174, 430-450, 800-950 MHz

MRM

- 3 oz Magnet mount
- 12 ft RG58/U coax
- Available with BNC or Pin plug connector

MOT

- Trunk mount
- 15 ft RG58/U coax
- Available with BNC or Pin plug connector

MOR

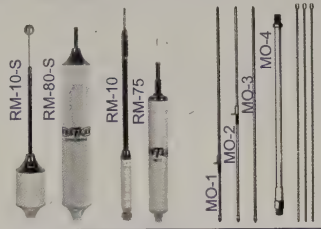
- ¾" Roof or deck mount
- 12 ft RG58/U coax
- Available with BNC or Pin plug connector

Phone: 940.325.1386
Toll Free: 877.994.9499
Fax: 940.328.1409

Amateur HF Mobile 10,12,15,17,20,30,40,60,75 and 80 Meter

If you are serious about HF mobile operation the **Hustler** HF Mobile System is the obvious choice. **Hustler** manufactures and sells more HF mobile antennas world wide than anyone. No other manufacturer offers the convenience, the flexibility or the pure performance that **Hustler** does. Our HF Mobile System offers a wide variety of components which enable you to customize your installation to fit your present and future needs. A choice of four different support masts provides an installation solution for every vehicle. A selection of eighteen interchangeable resonators in high and moderate power levels and varying bandwidths are available. A full complement of accessories such as springs, a multiband adapter and a quick disconnect device complete the system. Experience the satisfaction that comes with owning the best in the world — the **Hustler** HF Mobile System.

	Model	Band	Power SSB	Bandwidth 2:1 SWR	Weight lbs
RM-6	Standard	6 m	400 W	150-250 KHz	0.41
RM-10	Standard	10 m	400 W	150-250 KHz	0.41
RM-11	Standard	11 m	400 W	150-250 KHz	0.41
RM-12	Standard	12 m	400 W	90-120 KHz	0.41
RM-15	Standard	15 m	400 W	100-150 KHz	0.42
RM-17	Standard	17 m	400 W	120-150 KHz	0.44
RM-20	Standard	20 m	400 W	80-100 KHz	0.46
RM-30	Standard	30 m	400 W	50-60 KHz	0.84
RM-40	Standard	40 m	400 W	40-50 KHz	0.84
RM-60	Standard	60 m	400 W	40-50 KHz	0.84
RM-75	Standard	75 m	400 W	25-30 KHz	1.05
RM-80	Standard	80 m	400 W	25-30 KHz	1.05
RM-6S	Super	6 m	1 kW	250-400 KHz	1.00
RM-10S	Super	10 m	1 kW	250-400 KHz	1.00
RM-11S	Super	11 m	1 kW	250-400 KHz	1.00
RM-15S	Super	15 m	1 kW	150-200 KHz	1.20
RM-20S	Super	20 m	1 kW	100-150 KHz	1.25
RM-40S	Super	40 m	1 kW	50-80 KHz	1.80
RM-75S	Super	75 m	1 kW	50-60 KHz	2.10
RM-80S	Super	80 m	1 kW	50-60 KHz	2.10



Mobile HF Antennas
Hustler Masts

MO-1
Mobile mast 54" length, for bumper, fender or hitch mounting. Folds over at 15" above base. Made of highest quality heat treated Stainless steel and aluminum parts. 3/8" x 24 threaded

MO-2
Mobile mast, 54" length, for bumper, fender or hitch mounting. Folds over at 27" above base. 3/8" X 24 threaded

MO-3
Mobile mast, 54" length, for bumper. fender or hitch mounting. solid aluminum with white vinyl coating. Does not fold over. 3/8" X 24 threaded

MO-4
Mobile mast 22" length, trunk or deck mounting. Three retuning tip rods included. 3/8" X 24 threaded

Professional Chrome Series

C-32
Chrome plated 1-1/2" ball mount. Furnished complete with rubber pad, steel backup plate, all mounting hardware and hex key.

C-30
Chrome plated 4" spring. Copper braided center conductor to prevent detuning. Accepts 3/8" x 24 antennas

C-29
Stainless steel 4" spring. Copper braided center conductor to prevent detuning. Accepts 3/8" x 24 antennas

Resonator Spring

RSS-2
Finest quality stainless steel spring for use between resonator and Hustler antenna mast. This 3" spring absorbs shock when the antenna strikes overhanging obstructions. Supplied ready for easy installation with 3/8" x 24 threads, female on one end, and male on the other. Copper braided center conductor to prevent detuning.

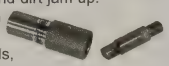
Magnet Mount

MBM "Super" Magnet

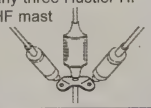
- 95 lbs. Pull strength
- Powerful 5 inch diameter magnet
- 8 pole magnet
- 16 feet RG 58/U coax with PL-259 connector.
- 3/8" x 24 female threads
- Recommended for antennas up to 48".

Quick Disconnect

QD-2
100% Stainless Steel. Remove antenna from mount in seconds with push and twist release. Every part including the compression spring is manufactured from the best available 100% stainless steel. Special design of enclosed compression and lock assembly assures freedom against ice and dirt jam up. Accommodates small, medium and large mobile antennas. Equipped with 3/8" x 24 threads, female on one end and male on the other.

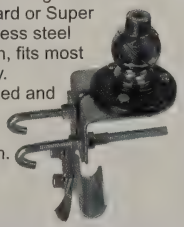


VP-1
Automatic bandswitching using any three Hustler HF resonators. Adapts any Hustler HF mast to tri-band operation. No additional tuning necessary.



Bumper Mount BM-1

Design is rugged for supporting Hustler antennas with the Standard or Super resonators. Heavy stainless steel strap, stronger than chain, fits most bumpers inconspicuously. Assembly is easily installed and held rigid by "J" bolts at the top and a bumper strap clamp at the bottom.



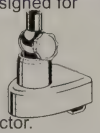
Professional Stainless Steel Series

SSM-1
Heavy-duty mount with 4" stainless steel spring with copper braided center conductor to prevent detuning. 180 degree adjustable 2" diameter stainless steel ball. Accepts 3/8" x 24 antennas

SSM-2
Heavy-duty 2" diameter stainless steel ball mount. 180 degree adjustable. Accepts 3/8" x 24 antennas.

SSM-3
Heavy-duty stainless steel 4" spring with 3/8" x 24 coupling stud. Copper braided center conductor to prevent detuning.

HLM Trunk lip mount designed for hatch and slanted back vehicles. 180 degree 1" diameter ball, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.



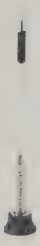
TLM Trunk lip mount, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

HOT Trunk lip mount with easy off/on by using thumb knob. 180 degree 1" diameter ball, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

RVM Recreational vehicle mount with heavy duty bracket. Easy antenna removal or lay down with thumb knob. 1" ball that accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

2M/70CM Dual Band Series Antennas

Radiall/Larsen dual band antennas provide excellent performance for simultaneous use of VHF and UHF amateur frequencies. Each Radiall/Larsen dual band antenna is factory preset to guarantee optimum performance with no tuning required.



NMO-2/70-SH $40.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB w/spring
Height: 17"
Whip: WNMO2/70SH
Lower profile amateur 2m/70cm dual band antenna with spring for NMO mounts.

NMO-2/70B (black) $65.99
Freq: 144-148/440-450 MHz
Gain: 2.4/4dB
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 33.5"
Whip: W2/70B
Amateur 2m/70cm dual band antenna for NMO mounts. Available in chrome (below).

NMO-2/70C (chrome) $60.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 36.75"
Whip: W2/70
Amateur 2m/70cm dual band antenna for NMO mounts. Available in black (above).

MM-2/70PL $50.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: 3' Round Mag Mount
Height: 17"
Whip: WNMOQ2/70B
Complete 2m/70cm magnetic moung antenna with 12' of RG58A/U coax.

NMOQ-2/70-B (black) $36.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB
Height: 18"
Whip: WNMOQ2/70B

Kulglass Series High Performance Glass Mount Antennas

Radiall/Larsen's Kulglass™ (KG) series uses a patented low impedance design and advanced materials to produce the world's best on-glass antenna. The KG uses advanced resin polymer plastic to completely enclose the circuit board or loading coil for mechanical durability and weather resistance. 3M's best adhesive tape, plus Radiall/Larsen's unique bonding enhancer ensure the best possible grip to the glass.

KG-2/70-CX-PL $116.99
Freq: 144-148/442-448 MHz
Gain: 2.4/4.5dB*
Power: 50 Watts
Type: VHF: 1/2 Wave
UHF: Collinear
Base: KG2/700/S
Height: 32.5"
*Ground plane required for gain
Glass mount dual band antenna for 2m/70cm amateur radio frequencies.

KG-144-UD-PL $83.99
Freq: 144-160 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG1440/S
Conn: PL-259
Height: 48"
Whip: WKG144
Complete KG glass mount antenna.

KG-220-UD-PL $83.99
Freq: 220-225 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG2200/S
Conn: PL-259
Height: 26.5"
Whip: WKG220
Complete KG glass mount antenna.

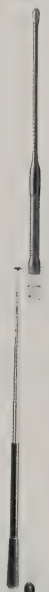
KG-440-UD-PL $71.99
Freq: 440-460 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG4400/S
Conn: PL-259
Height: 15"
Whip: WKG440
Complete KG UHF glass mount antenna with coax and connector.

Tri-Band Scanner Antenna

NMO-150450800 ..... $29.99
Freq: 150-165/450-470/806-940 MHz
Gain: 2.14 dBi
Type: Tri-Band Scanner Only
Mount: NMO
Height: 16.5"

Radiall/Larsen Exclusive Kulduckie Portable Series

Superior transmit range and tough mechanical durability are the hallmark of Radiall/Larsen portables. All center cores are made of brass or copper plated steel to maximize RF emission. Fully soldered connections and silver-plated components improve electrical efficiency. Double spring BNC's also reduce wear on the mount. Other styles available.



KD4-146-HQ (2m) $25.99
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/4 Wave Helical
Conn: BNC
Height: 8"

KD-14-2M-HW $38.99
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/2 Wave Telescoping
Conn: BNC
Height: 8.5 to 42"
Whip: WKD142MHW

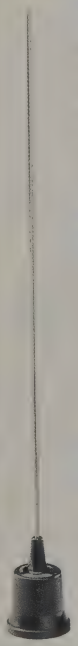
KD4-2/70 ..... $36.99
Freq: 144-148/442-448 MHz
Gain: Unity
Power: 25 Watts
Type: VHF: Loaded 1/4 Wave
UHF: 1/4 Wave
Conn: BNC
Height: 8"
Impedance matching transformer provides high Q and deeper resonance.

Industry's Best NMO Mobile Antennas

Radiall/Larsen's own version of the standard 3/4" Motorola TAD/TAE type mount uses advanced design, materials and construction to provide a premium mount. For demanding outdoor applications, the chemical resistant NMO series is housed in a resin polymer plastic shell which is completely molded around the nickel plated brass whip stud to eliminate moisture damage. Our superseal gasket also greatly reduces water intrusion under the base.

NMO-27C (chrome) $32.99
Freq: 27-31 MHz
Gain: Unity
Power: 200 Watts
Type: Loaded 1/4 Wave
Base: NMO27BCO
Height: 53"
Whip: W490

NMOQ-SPEC $13.99
Freq: 136-512 MHz
Gain: Unity
Power: 200 Watts
Type: 1/4 Wave
Height: 21"



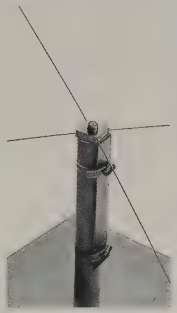
NMO-150C (chrome) $30.99
NMO-150B (black) $33.99
Freq: 144-174 MHz
Gain: 3dBd
Power: 200 Watts
Type: 5/8 Wave
Base: NMO150BCO
Height: 51.75"
Whip: W490

NMO-220C (chrome) $30.99
NMO-220B (black) $36.99
Freq: 220-225 MHz
Gain: Unity
Power: 200 Watts
Type: 5/8 Wave
Base: NMO220BCO
Height: 34.5"
Whip: W400

NMO-440C (chrome) $29.99
NMO-440B (black) $35.99
Freq: 440-460 MHz
Gain: 4.5dBd
Power: 200 Watts
Type: 5/8 over 1/2 Wave
Base: NMOUHFBASEB
Height: 33"
Whip: W154

Base Station Antennas

Radiall/Larsen manufactures a variety of small base station for directional and omni-directional applications. Each base station antenna is designed with premium materials to withstand the most demanding weather conditions. All base station antennas come with mounting hardware to attach to a pole up to 2" in diameter.



BSA-K $53.99
Freq: 144-512 MHz
VSWR: 1.5:1 or less
Power: 200 Watts
Conn: UHF Female
Whip: 51-3/4"

Complete base station kit for designing a base station unit from 144-512 MHz. Comes with mounting hardware (antenna is extra). Works with NMO and UHF mount antennas.

Mobile GPS Antenna

GPS-NMO02 ..... 69.99
Freq: 1575.4 MHz
Gain: 5 dBic/28 ±2 dB (LNA)
Voltage: 5 VDC
Type: GPS NMO mount
Height: 1.3" high x 2.9" diameter

Mounts

Larsen has a full line of permanent and temporary mounts to solve nearly every installation problem. Each mount is manufactured of the highest quality materials, including premium coax.

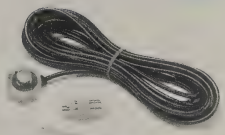
NMO-K $15.99
Motorola style
roof mount
Size: 3/4"
Coax: 17' RG-58A/U
Conn: PL-259

NMO-MM $32.99
Motorola style
magnetic mount
Size: 3-1/2" x 3"
Rectangle
Coax: 12' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

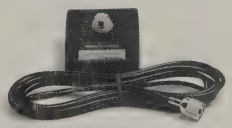
More RADIALL/LARSEN
See listing in Price Guide

NMO-TLP $29.99
Motorola style
trunk lip bracket,
black
Size: 1-3/4" x
1-3/4"
Coax: 17' RG-
58A/U
Conn: PL-259

PO-K $30.99
SO-239 female type
roof mount
Size: 3/4" hole
Coax: 17' RG-58A/U
Conn: PL-259



PO-MM $36.99
SO-239 female type
magnetic mount
Size: 3-1/2" x 3"
Rectangle
Coax: 17' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.



TMB-34 (chrome) $5.99
TMB-34B (black) $7.99
Trunk mounting bracket
for NMO antenna.
Size: 1-5/8" x 1-5/8"
Mount: NMO

Parts and Accessories

W-490 ..... $8.99
Chrome .100 tapered replacement whip
for 144 MHz. (49")

W-490B $12.99
Black .100 tapered replacement whip
for 144 MHz. (49")

W-2/70B $27.99
Black .100 dia. replacement whip
for NMO 2/70B (approx. 31")

RADIALL/LARSEN
antenna technologies

Radiall/Larsen Antenna Technologies
3611 NE 112th Avenue
Vancouver, WA 98682
360 944-7551, Fax: 360 944-7556
Email: info@radialllarsen.com
Web: www.radialllarsen.com

SOTRON
BILAL COMPANY

Antennas for Very Limited Space
Simple & Effective...

Tried, Proven and Successful since 1980

See product reviews **73 Magazine:** Oct. '84, Sept. '85, Mar. '86, Nov. '94, Apr. '96. **CQ magazine:** Dec. '88. **WR:** Mar '91.
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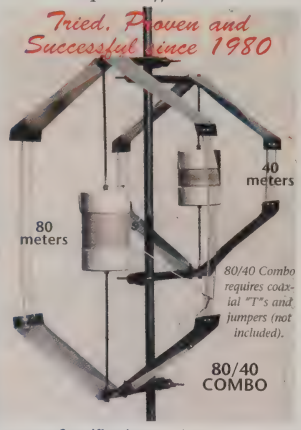
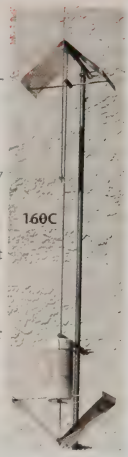


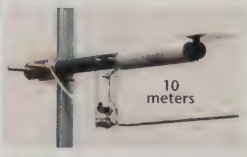
- Solve restricted space problems.
- Easy, quick, and simple installation.
- Handles up to 1,000 watts PEP.
- Excellent portable operation - emergencies, RV's, field day, motels, Maritime operation.
- Not dependent on a grounding system for performance.
- Unobtrusive appearance, making a very discreet looking installation.
- Very Stealth.
- Excellent Low Noise reception and transmitting quality performance is not compromised by its compact design.
- Tunes and performs without radials.
- Multi-band operation on one feedline with back to back mounting. Any other combination of three bands may be substituted on special order.
- Durable construction, can be used in extreme weather conditions, will not bend in high winds. No motors or mechanical tuning devices to fail.



Common Specifications: 1000W PEP power rating (300W, CW, AM, FM, RTTY) • 50–75Ω coax feed • Omni-directional radiation pattern • Bandwidth shown is within 2:1 SWR but may vary with environment • Stainless steel fasteners • Zinc plated u-bolts • Tempered aluminum components • Cast acrylic and PVC insulators • THHN #14 solid copper coils • 85 mph wind rating

Individual Specifications:

Model	160C	80	40	20	15	10	6
Band	160 meters	80 meters	40 meters	20 meters	15 meters	10 meters	6 meters
Freq. (MHz)	1.8-2.0	3.5-4.0	7.0-7.3	14-14.35	21-21.450	28-30	50-54
hxwxd (in.)	114 x16x15	32x16x15	22x16x15	21x8x4	21x1½x4	16x1½x4	16½x2x4
BW	100kHz	110kHz	250KHz	350kHz	450kHz	1MHz	1.25MHz
Windload (sq. ft.)	1.697	1.37	1.0	0.23	0.23	0.16	0.13
Weight	7 lbs.	6 lbs.	4 lbs	2 lbs	2.0 lbs	1.5 lbs	1.5 lbs.
PRICE	**$173.99**	**$98.99**	**$88.99**	**$78.99**	**$78.99**	**$78.99**	**$78.99**



Multiband Models (top & right)

80/40 COMBO Same as individual model specifications above. Operate 80/40 meters with one feed line 32"x16"x30", 2.37 sq. ft. 10 lbs..... **$177.99**

20/15/10 COMB Covers same as individual model specifications above. Operates 20/15/10 meters with just one feed line..... **$198.99**

SPECIAL ORDER! – **You can make up your own combination. Substitute 30m for 40m in the 80/40 Combo or 17m for 15m in the 20/15/10 Combo. MARS, CAP and Commercial models available.**

Van Gorden Engineering

DIPOLE ANTENNAS

Complete with Hi-Q 1:1 balun, #14 stranded copper antenna wire, plastic insulators, and 100 ft. of nylon rope. Rated for full legal power. May be used in an inverted-V configuration.

D-80 80m, 130' **$32.99**
D-40 40m, 66'..... **29.99**
D-20 20m, 33'..... **28.99**
D-15 15m, 22'..... **27.99**
D-10 10m, 16'..... **26.99**

Shortened Dipoles Construction is the same, and includes traps as shown above.

SD-80 80m, 90'..... **$36.99**
SD-40 40m, 45'..... **34.99**

ALL BANDER **All Bander Dipole** Covers 160 to 10M using an antenna tuner with balanced output. Full 135 ft. long (or less, as an inverted V or sloper). Trim to fit small lots. Assembled, with #14 gauge copper wire, center and end insulators and 100 ft. of 450Ω balanced line. 2KW PEP..... **$29.99**

SHORTY **All Bander** As above, but with loading coils to shorten the length to 70' overall... **$44.99**

MULTIBAND ANTENNAS

G5RV Covers 3.5–30MHz, plus 1.8MHz as a Marconi-type antenna with a tuner. Consists of a 102 ft. flat top with a 31' long section of 300Ω (450Ω for models below) KW twinlead, a transformer/coupler and 70 ft. of RG-8X coax and connector. 2KW PEP, assembled..... **$50.99**

G5RV JR 7–30MHz , 52', 17' twinlead **24.99**
G5RV-E 3.5–30MHz, 102', 31' twinlead **28.99**
G5RV-M 1.8–30MHz, 204', 65' twinlead **50.99**

ANTENNA SUPERMARKET

EAVES TWIN **The Eavesdropper Shortwave Broadcast Receiving Antenna** A 42 ft. long center-fed dipole with 8 automatic bandswitching trap circuits which electrically separate the antenna segments – just tune your receiver to the desired band. The Eavesdropper covers the 11, 13, 16, 19, 21, 25, 31, 41, 49, 60, 75 and 90 meter bands. Includes The Zap-Trapper® gas-tube lightning arrestor for receiver protection and 50 ft. of 450-pound test support rope. Completely assembled, ready to use. With 100' of 72Ω twin lead..... **$89.99**

EAVES SO239 With weather-proofed SO-239 coaxial center connector, coax not included . **$89.99**

DIAMOND ANTENNA

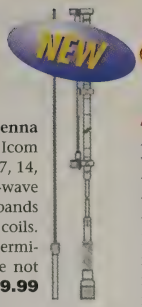
D-130J Super Discone Copied by many, equaled by none. Professional quality. Ultra-wide-band omnidirectional – receives amateur, air traffic control, police, fire and other utilities from 25-1300MHz. Can transmit 80-1300MHz (50MHz with adjustment). Rust-free stainless steel employed in major component parts. Ideal antenna for scanners and receivers. Use standard RG213 or RG8X coax. Mast mounting U-bolts included. 67"h, 2.2 lbs..... **$99.99**

UNADILLA

W2AU/W2VS 5 **Band Antenna Kit** Resonant on 40 and 80M. SWR on 10, 15 and 20M will be higher (2:1 to 4:1) and a transmatch may be necessary to operate these bands. Includes 40M traps, W2AU balun, end insulators and 120 feet of #14 stranded antenna wire. Rated 2KW PEP, 110 feet long..... **$85.99**

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

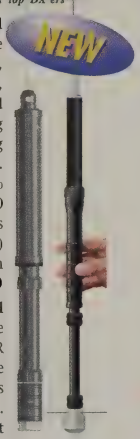
ICOM



AH-703 HF/50MHz Five-Band Antenna Designed for portable operaion with Icom IC-703 and IC-703PLUS. It covers the 7, 14, 21, 28 and 50MHz bands with a 1/4-wave design and 20W power capacity. The bands are covered by changing the supplied coils. Requires a PO-type base (the AH-703 terminates to a PL259). Base and coax are not supplied. • 4.6'h, 12 oz **$199.99**

YAESU

Choice of the World's top DX'ers

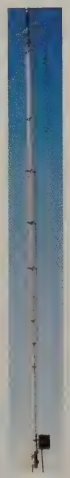


ATAS-25 HF/VHF/UHF QRP Field Antenna *(right)* Perfect for portable use with the Yaesu FT-100D, FT-817, FT-857 or FT-897. 7, 14, 21, 28, 50, 144 and 430MHz coverage. Band switching accomplished by changing supplied elements and adjusting coils. Matched SWR is less than 2.0:1. • HF/6M – 100W SSB/CW @ 50% duty cycle (50W AM/FM) • 144/430 MHz – 50W all modes • Requires camera-type tripod (not supplied) • SO-239 base accepts PL-259 • 7.2'h maximum • 2.05 lbs..... **$229.99**

ATAS-120 HF/6/2/430 Motorized Tuning Antenna *(left)* Resonates the radiating element for lowest SWR using control voltages sent via the coaxial cable to Yaesu transceivers equipped for the ATAS system. Without duplexer, coaxial cable must be moved manually to correct jack when switching (VHF/UHF). Solid, sliding sections tune 20% faster than ATAS-100. Mounts directly onto a standard Diamond or Comet mobile mount. • 120W maximum input • Less than 2:1 matched VSWR • 4.59' to 5.25', 1.98 lbs **$299.99**

ATBK-100 VHF/UHF Antenna Base Kit Not required, generally, unless operating VHF/UHF with the ATAS-120 off-vehicle (balcony railing, etc.), when it restores low-angle response for enhanced performance. Use with base mount **$89.99**

hy-gain



HF Vertical Antenna Effective counterpoise replaces radials and ground system • Automatic bandswitching with a single coax cable feed. Each band is individually tunable. Extra wide VSWR bandwidth. End fed with broadband matching unit. DC grounded. • Low angle of radiation - 17° for exciting DX. • 2.5 sq. ft. wind surface area • Small area required for mounting easily on roofs, decks and patios. • Handles full legal limit 1500W key down for two minutes • Aircraft quality aluminum tubing, stainless steel hardware; 80 mph wind survival.

AV-620 20-6M 6-Band No traps, coils or radials. 22.5' tall, 10.5 lbs..... **$269.99**

AV-640 40-6M 8-Band Uses 1/4-wave stubs on 6 thru 17M and end loading and capacity hats on 15 thru 40M. 25.5' tall, 17.5 lbs **$359.99**

SOLARCON ANTENNAS A99

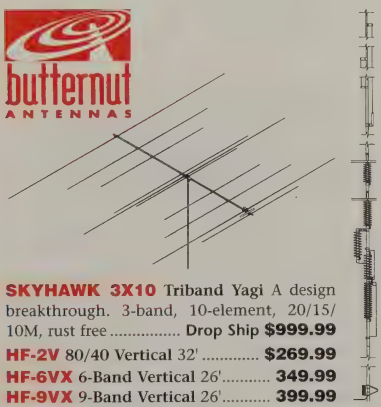
A-99 10M Base Antenna with Twin Ring Adjust-A-Match Tuning Voltage-fed, half wave variable, mutual transfer inductance tuned antenna. It's economical and easy to use! The SOLARCON sealed base unit is tuned with external inductance rings. Impedance remains constant over the tuning range. Simple Tuning! Raising the tuning rings raises the frequency and lowering the rings lowers the resonant frequency.

Rugged, three-piece, white fiberglass construction with triple-plated brass fittings. It's easy to assemble and install. The optional GPK-1 ground plane radial kit makes it perform even better!

• Full 10 meter band coverage • 3 dBi gain • 2kW power limit • Low angle of radiation for DX • DC grounded • Mounts on 1.5 in. mast • Uses 52Ω coaxial cable with SO-239 connector • 17 ft. 8 in. length..... **$64.99**

GPK-1 Groundplane Kit Use with the A-99 for 30% more power gain and lower angle of radiation. Collar and 4 fiberglass radials **$39.99**

butternut ANTENNAS



SKYHAWK 3X10 Triband Yagi A design breakthrough. 3-band, 10-element, 20/15/10M, rust free ..... Drop Ship **$999.99**

HF-2V 80/40 Vertical 32' **$269.99**

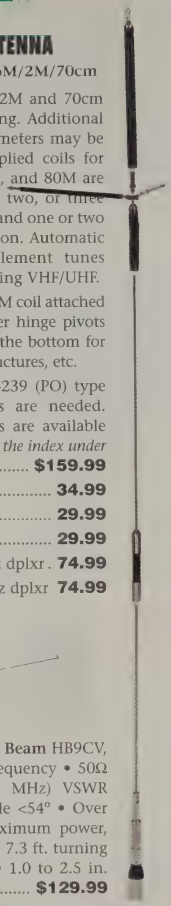
HF-6VX 6-Band Vertical 26'..... **349.99**

HF-9VX 9-Band Vertical 26'..... **399.99**

COMET

HF/VHF/UHF MOBILE ANTENNA

For radios that operate HF/6M/2M/70cm



UHV-6 Designed for 6 and 2M and 70cm basic operation without tuning. Additional coverage for 40, 15 and 10 meters may be added by installing the supplied coils for those bands. Coils for 20, 17, and 80M are optional. Choose either one, two, or three coils and add one to the top, and one or two to the side, in any combination. Automatic bandswitching. Each HF element tunes independently without effecting VHF/UHF.

Only 7 ft. 2 in. tall with the 40M coil attached to the top. A unique fold-over hinge pivots approximately 5 inches from the bottom for garaging, entering parking structures, etc.

Installs on any standard SO-239 (PO) type mount; no special brackets are needed. Several duplexers/ triplexers are available for all multiband radios. – *see the index under duplexers for selection*..... **$159.99**

L-3.5 80M coil **34.99**

L-14 20M coil **29.99**

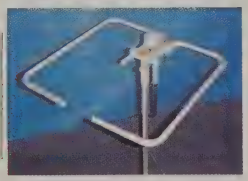
L-18 17M coil **29.99**

CF-530 1.3-90/125-470MHz dplxr . **74.99**

CF-706A 1.3-56/75-470MHz dplxr **74.99**

CA-52HB4 Wide Band 6M Beam HB9CV, 4-element • 50MHz band frequency • 50Ω impedance • <1.5:1 (50-54 MHz) VSWR • 10.4dBi • Half power angle <54° • Over 19dB F/B ratio • 400W maximum power, SSB • Boom length, 10.5 ft. • 7.3 ft. turning radius • SO-239 connector • 1.0 to 2.5 in. mast diameter • 4 lbs, 14 oz..... **$129.99**

M²



HO Loops At times, when using highly directional VHF or UHF antennas, there are signals you cannot hear off the sides and back. The addition of an HO-Loop to your set-up will enable you to be aware of those stations you may be missing. Great for round tables, nets and monitoring for band openings.

HO-Loops are horizontally polarized and omnidirectional, ideal for mobile or base operation with contacts up to 200 miles not uncommon. Typical gain is 4.0+ dBd, and power rated at 800W or 1.5kW stacked. They're easily adjustable and have a wide bandwidth that ensures high performance regardless of the weather.

6M-HO-LOOP 50-50.3MHz, 29.5" sq.... **$113.99**

2M-HO-LOOP 144-144.5MHz 11.25" sq.... **49.99**

222-HO-LOOP 220-224MHz, 7.75" sq **49.99**

432-HO-LOOP 430-436MHz, 4.4" sq **49.99**

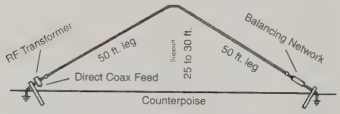
BROADBAND ANTENNAS

• MARS, ARES, RACES, CAP, Amateur – One antenna does all "out of band" frequencies! Single antenna solution for regular amateurs • Low cost – Compared to multiband antennas. Utilize one antenna instead of several. No need for an antenna tuner or antenna switches. • Performance – Not limited to conventional ham bands. Operate on any frequency in the antenna's bandwidth, and have VSWR of 2:1 or better. • Low Noise – Capture weak signals in receive mode. Better performance than any vertical and very reliable. • Simple to Use – Work any frequency you want with low SWR without measurements and tuning.

BROADBAND FOLDED DIPOLES

These antennas operate all HF frequencies continuously within their design range without an antenna tuner, plus 6M with a tuner. Install as flat top, inverted vee, or sloper. Constructed of #14 stranded copperweld or stainless steel wire. Unbalanced 50Ω input with SO-239 connector. Shipped completely assembled. Handles 2 KW PEP.

BWD-20 14-30, 20 ft., copperweld **$179.99**
BWD-45 7-30, 45 ft., copperweld **$189.99**
BWD-65 4-30, 65 ft., copperweld **$199.99**
BWD-90 1.8-30, 90 ft., copperweld **$209.99**
BWDS-65 4-30, 65 ft., stainless ..... C/O **$319.99**
BWDS-90 1.8-30, 90 ft., stainless .. C/O **$339.99**
FDMK Folded Dipole 3-pole mtg. kit..... **$39.99**



BROADBAND END-FED VEE ANTENNA

Unique design, covers 1.8-30MHz continuous, with a VSWR of <2:1 without an antenna tuner, 6M with a tuner. Installs with termination at both ends by ground stakes (not included), and the center about 25' above the ground. Omnidirectional, high angle radiation at lower frequencies. Increased angle from 5-15MHz, above 15MHz more directional in the line of the antenna wire. In limited space, wire may be shortened without greatly affecting the VSWR, but lowering radiation efficiency. Excellent EMI rejection and is extra quiet to capture weak signals. Handles 2kW PEP. Fully assembled, uses #14 stranded copperweld or stainless steel. 110' long, 7 lbs.

AC-1.8-30 Copperweld wire **$209.99**
ACS-1.8-30 Stainless steel wire.... C/O **$339.99**

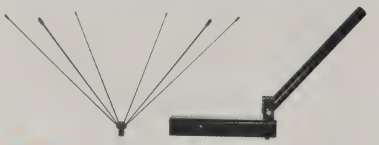
AP-10A Window/Portable 300W PEP Antenna A 10-40M base loaded antenna with 7-30 MHz continuous coverage, plus 2 and 6M. Tunes a low VSWR by tapping a fly lead up or down the coil and adjusting the supplied counterpoise wire. A quick and dependable antenna system when larger antennas cannot be used. Supplied with mounting bracket/clamp, counterpoise wire and 10 feet of coax..... **$89.99**

High Sierra AntennAs

MOTORIZED ANTENNA

PLATINUM PACK Continuous coverage, Motor Driven HF Antenna Package The HS-1800/PRO antenna provides continuous tuning from 3.5 to 30MHz with a typical VSWR of less than 1.5:1 across the entire tuning range. Removing the supplied 6-foot whip provides a tuning range from 6.9 to 60MHz. The "best antenna" for general mobile use because of its light weight, high performance and ability to cover the entire HF spectrum. Also a great idea for antenna-restricted QTHs, ARES/RACES and more!

Complete package, ready to install, includes the HS-1800/PRO *(right)* – black powder coat finish with black stainless-steel whip, black universal mounting bracket, quick-disconnect manual control box, RF filter assembly and installation kit (20 feet of control cable, wire ties, (2) PL-259's, 3 feet of ground strap and connector sealing material)..... **$495**



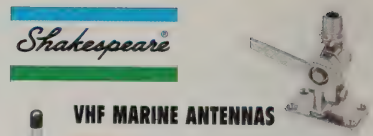
HS-120 Capacity Hat *(left)* Six stainless steel rods with aluminum tips inserted into a brass hub. Hat diameter is 1.5 feet. Installed on the HS-1800 it's roughly equal to adding 6 more feet of whip.. **$50**

HS-202CL *(right)* 2" x 2" receiver "lay back" adapter for the universal mounting bracket.. **$100**

HS-214CL *(right)* 1.25" x 1.25" receiver "lay back" adapter for the universal mounting bracket.. **$100**

PROSTAR® 1000 VHF/UHF/FM Antennas Features die-cut impedance correlator that allows close spacing of antenna elements. Manufactured from high tensile aluminum for a strong, compact antenna that will better withstand strong winds and ice loading. Protected with polymer finish.

PR-7010 Metropolitan 22 active elements (9 VHF, 13 UHF) • 66.5" boom..... **$39.99**
PR-7032 Far Suburban 33 active elements (13 VHF, 20 UHF) • 103.25" boom..... **$64.99**
PR-7042 Fringe *(top)* 43 active elements (17 VHF, 26 UHF) • 149.75" boom..... **$99.99**



VHF MARINE ANTENNAS

4187 Ratchet Mount *(above)* Stainless steel. 4-way ratchet design with handle for deck or bulkhead mounting. Standard 1"–14 male threads..... **$36.99**

396-1 Center-fed 1/2 Wave Coaxial Sleeve Antenna Basic 3dB antenna designed to reduce signal fading when working in rough seas. Widely used by the Coast Guard. 5MHz bandwidth, 3dB gain, 50W • Shakespeare, white fiberglass • Brass and copper elements • Deluxe chrome-plated brass ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259. Use 4187 ratchet mount **$69.99**

420 Skipper™ Center-fed 1/2 Wave Coaxial Sleeve Antenna Economical, and a good basic 3dB antenna for steady, day-to-day cruising in calm to moderate seas. Includes a polycarbonate lift/lay deck mount, leveling plate and hardware. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Polycarbonate ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259..... **$69.99**

5101 Centennial™ End-fed Antenna with Matching Stub High-end features in an 8' antenna with a brass element and a smooth, high gloss, polyurethane finish that won't turn yellow in the sun. 5MHz bandwidth, 6dB gain, 50W • One section • Brass and copper elements • Chrome-plated brass ferrule with standard 1" x 14 thread • 8 ft. length • Includes 15 ft. RG-58 cable and a PL-259 coaxial connector. Use with 4187 ratchet mount..... **$59.99**

5206-C End-fed Antenna with Matching Stub Economical, lightweight and self-supporting antenna for good communications where range is not the predominant factor. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 15' RG-58 cable with PL-259. Use with 4187 ratchet mount..... **$49.99**

5202 Collinear-phased 5/8 Wave Elements A rugged, professional quality antenna featuring a heavier duty radome and tough brass and copper construction for maximum efficiency and extra range. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 20' RG-58 cable with PL-259. Use with 4187 ratchet mount..... **$89.99**

Used & Demo Equipment lists
Updated regularly on the web.
Check them out and order **On-line**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

SGC

ANTENNAS

54-23 Stealth Kit SGC's Stealth Kit is the ALL-IN-ONE convenient antenna solution:

- Erect an emergency field operation in minutes.
- The perfect GRAB-AND-GO antenna system for overnight or overseas.
- Configure an undetectable loop antenna for installation in restricted areas.

Everything you need to get on the air FAST! Kit includes the SG-237 Smartuner, 80 feet of quality 18 gauge flexible wire, 30 feet nylon rope, 6 mounting clips, 12 reusable tie wraps, SG-237 and STEALTH Kit manuals **$399.99**

QMS Quick Mount System The QMS is a low profile mobile system. Achieve increased radiation and efficient tuning with its built-in Smartuner™ system. The QMS mounts on any vehicle, with a patented strap and buckle system, and with no holes or damage to the vehicle. Installation can be permanent or temporary and takes just 15 minutes. A lightweight mobile antenna such as the SG-303 or SG-307 provides a wide frequency range and easy tuning. Visit the SGC wedsite for more information on their full line of antenna solutions and HF accessories.

55-47 QMS 2 QMS including SG-230 antenna coupler and SG-303 whip antenna..... **$894.99**

55-48 QMS 3 QMS including SG-235 antenna coupler and SG-303 whip..... Closeout **$1899.99**

55-50 QMS 37 QMS including SG-237 antenna coupler..... **$549.99**

SG-303 Whip Antenna Lightweight, helically wound, low cost mobile antenna system for operation between 2-30MHz. 9 feet overall length in two sections of 50 inches each. For use on vehicle or boat up to 60mph. 1.8-30MHz, 50 Watts PEP voice or CW. Loaded at 13.2 and 22MHz. High voltage insulated 4-way stainless steel ratchet mount. Heavy duty reinforced base spring. 3 foot high voltage wire, one end terminated by a round lug. High voltage wall feed-thru bushing (hole 0 = 0.890 inch). 3 ft. 3/4 inch wide ground strap for coupler grounding.

Antenna must be used with an antenna coupler such as the SG-230.

55-27 SG-303 w/mount . C/O **$399.99**

55-67 SG-303 whip only C/O **$249.99**

55-28 SG-307 Whip With Mount Lightweight, helically wound, low cost mobile antenna system for operation between 1-60MHz. 7 feet overall length. For use on vehicle or boat up to 75mph. 150 Watts PEP voice or CW. Loaded at 8 and 25MHz. High voltage insulated 4-way stainless steel ratchet mount. Heavy duty reinforced base spring and threaded male stud 3/8-24. 3 foot high voltage wire, one end terminated by a round lug. High voltage wall feed-thru bushing (hole 0 = 0.890 inch). 3 ft. 3/4 inch wide ground strap for coupler grounding..... **$449.99**

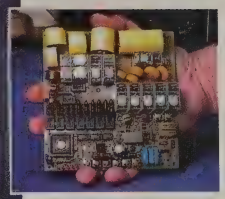
Antenna must be used with an antenna coupler such as the SG-231.

SPEAKER

70-14 ADSP² Noise Reduction Speaker Noise reduction and tone interference rejection in AM, SSB, FM and CW operation has never been easier. Incorporates SGC's propriety noise reduction technology in a small package. "One-Touch" control selects 13dB or 26dB of noise reduction. Requires 12VDC @ 500mA and speaker output or headphone jack. 3"h x 5"w x 2.5"d, 11 oz..... **$129.99**

ANTENNA CONTROLLER

54-25 MAC-200 Master Antenna Controller Select the right antenna, for the right band, at the right time with the MAC-200. The Master Antenna Controller operates as your base station control center, eliminating complicated switching and tuning. With two built-in computers, the MAC-200 can select and tune up to 5 antennas automatically, quickly and accurately. Built-in memories fine tune to minimum SWR with any balanced or unbalanced antenna. It instantly recalls settings from memory, allowing retuning in less than 10 minutes. Monitor your power and SWR with convenient meters on the front panel. Using SGC's well-known Smartuner™ technology, the MAC-200 is the perfect choice for anyone using multiple antennas in a base station system. • 1.8-60MHz • 1.5-200W • 168 memories • Pi configuration • 230mA average current • < 2 second random set time • 8.5"l x 6.5"w x 3"h, 5 lbs..... **$359.99**



SG-237/SG-237 PCB

ANTENNA TUNERS

SGC Smartuners™ deliver greater impedance matching, more tuning steps and more antenna choices than any other antenna coupler on the market. Get frequency agility and precision tuning. They are independently intelligent, matching ANY HF transceiver and ANY antenna. Smartuners are microprocessor controlled; analyzing the conditions of your antenna and automatically adjusting for the best match. They also remember each match, cutting retuning time to under 10 minutes when changing frequencies. Smartuners are available for power levels from 1.5 to 500 Watts and frequency ranges from 1.0 to 60MHz. They provide all purpose tuning ideal for base, mobile, portable, marine or aviation. Any budget, any installation... Your choice for antenna tuning should be an SGC Smartuner.

54-14 SG-230 Original Smartuner™ 1.8 to 30MHz • 200W • 16.2"l x 12.2"w x 3.2"h, 8 lbs .. **$489.99**

54-15 SG-235 High Power 1.8 to 30MHz • 500W • 16.2"l x 12.2"w x 3.2"h, 8 lbs..... **$1169.99**

54-17 SG-231 Precision Smartuner™ 1 to 60MHz • 100W • 11.5"l x 10.2"w x 3.2"h, 3.8 lb. **$529.99**

54-18 SG-237 General Purpose Smartuner™ 1.8 to 60MHz • 100W • 9"l x 7"w x 1.5"h, 2 lbs **$359.99**

54-19 SG-237 General Purpose Smartuner™ PCB only • 1.8 to 60MHz • 100W **$249.99**

54-22 SG-239 Budget Smartuner™ 1.8 to 30MHz • 200W • 7.5"l x 6"w x 1.9"h, 2 lbs **$179.99**

54-26 SG-211 Zero Power Consumption Smartuner™ The SG-211, SGC's newest Smartuner, provides the ZERO power consumption features you've wanted. This compact unit runs on 4 AA cells for 5 years. Lightweight, with no external power required, yet able to tune a 10:1 mismatch or worse. The unit features a naturally balanced output, capable of tuning most antennas. One external LED indicates tune, no tune and low battery. The SG-211 is the perfect companion for traveling or backpacking. • 1.8 to 60MHz • 60 Watts • 8.66"l x 4.69"w x 1.55"h, 1 lb..... **$179.99**

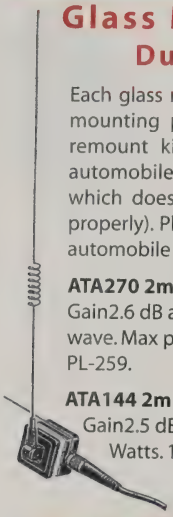
ATOC Technologies

ANTENNAS & MOUNTS

VHF / UHF Antennas

Glass Mounted Antennas Dual Band and VHF

Each glass mount antenna includes instructions and mounting package. Replacement whips, base and remount kits are available. (NOTES: Some newer automobiles are equipped with "passivated glass" which does not permit on-glass antennas to work properly). Please check your owner's manual or your automobile dealer.

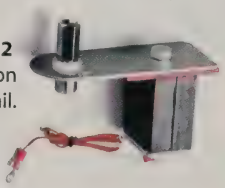


ATA270 2m / 440 MHz Antenna
Gain2.6 dB at 2m and 4.0 dB at 440 MHz over 1/4 wave. Max power 50 Watts. 14' RG-58 cable with PL-259.

ATA144 2m Antenna
Gain2.5 dB at 2m over 1/4 wave. Max power 50 Watts. 14' RG-58 cable with PL-259.

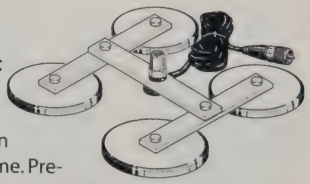
Stake Truck Bed & Magnetic Mounts from Iron Horse

Designed for the serious amateur on-the-go, these heavy-duty stainless steel mounts feature an expandable rubber base that locks mount when tightened for secure fit. Great for HF sticks and 102" stainless steel whip antennas. Both fit most pickup truck brands and models



IHSB-2
locates the antenna on either side of the bed rail.

IHSB-4
locates the antenna directly over the truck bed rail.



IH4501 & IH4501-SO
Quadruple Magnet Mount
4 x 5" MuleHorse Magnetic Mount Kit features four 5" magnets properly spaced on a heavy duty aluminum frame. Pre-wired with 17' RG-58 and PL-259. Triple chrome plated.
IH4501 accepts 3/8" x 24 thread antennas.
IH4501-SO accepts SO - 239 antennas.

HF Antennas

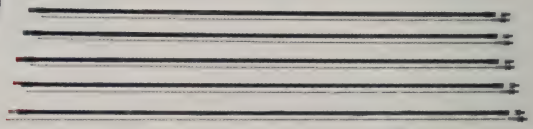
Iron Horse Series

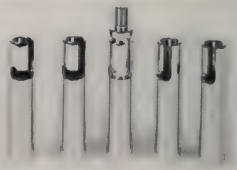
IronHorse

Enjoy great HF mobile performance with these rugged, easily tuned mono-band antennas. Made in the USA, Iron horse antennas are designed for maximum efficiency, low SWR and broad bandwidth. Each has 3/8 x 24 threads and is rated for 500 watts. Order the IHKD3S five antenna quick disconnect mounting kit to make changing bands a quick and easy operation. Just push, turn, and go!

MODEL	DESCRIPTION	BANDWIDTH (KHz)
IHF75	75 m HF Stick	36
IHF40	40 m HF Stick	60
IHF30	30 m HF Stick	50
IHF20	20 m HF Stick	150
IHF17	17 m HF Stick	175
IHF15	15 m HF Stick	200
IHF12	12 m HF Stick	300
IHF10	10 m HF Stick	500
IHF6	6 m HF Stick	1000

Model IHF5S is a set of five HF antennas all in one vinyl bag. The set includes 10 - 15 - 20 - 40 - 75 m antennas.

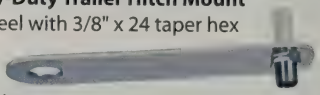




Model IHKD3S
is a five pack quick disconnect mount kit.

Model AN38
is an adaptor for NMO to a 3/8" x 24 thread antenna.

IHTH-1 Heavy-Duty Trailer Hitch Mount
All stainless steel with 3/8" x 24 taper hex w/ chrome-plated brass SO239 connector.



pro·am® ANTENNAS & ACCESSORIES

160-6 Meters Mobile

PHF Series Antennas

Single band whips consisting of a black fiberglass lower section with integrated coil and an adjustable and removable stainless steel whip, except for the PHF-160. These time-proven HF antennas are especially designed for maximum efficiency, low VSWR and broad bandwidth. They are power rated for 250 Watts P.E.P. and built to withstand considerable use. Standard 3/8" x 24 thread base. Assembled length on all models is 96 in. (the PHF-6 is 58 in.).

The model **DAK** Dual Adapter Mount ($13.99) accepts two antennas to make up a single band vertical or horizontal dipole which is perfect for limited space or portable opration..

Model	Band	Bandwidth	Price
PHF-160	160M	12 kHz	**$89.99**
PHF-75	75M	36 kHz	**$29.99**
PHF-40	40M	60 kHz	**$23.99**
PHF-30	30M	100 kHz	**$23.99**
PHF-20	20M	150 kHz	**$23.99**
PHF-17	17M	175 kHz	**$23.99**
PHF-15	15M	200 kHz	**$23.99**
PHF-12	12M	300 kHz	**$23.99**
PHF-10	10M	500 kHz	**$23.99**
PHF-6	6M	1000 kHz	**$23.99**

Thru Glass 2 Meter

GM-144 $29.99

Mounts on windshield and operates thru-the-glass to a tuning unit mounted on the inside. Features a 27-1/2 in. copper plated whip with black finish, 14 ft. of RG-58 coax and PL-259 connector. Gain is 2.5 dB over a 1/4 wave. VSWR is 1.5:1 through the band. Rated for 50W. Tunable.

Some autos have "passivated glass" which dows not permit antennas to work properly. Check your manual or dealer.

GM-144

Thru Glass 2M/70CM

GM-270 $59.99

Dual Band 2M/70cm thru-the glass antenna featuring a 26-1/2 in. copper plated whip with black finish, 14 ft. of RG-58 coax and PL-259 connector. Gain is 2.6 dB over a 1/4 wave at 2m and 4.0 dB over 1/4 wave at 70 cm. VSWR is <2:1 through the bands. Rated for 50W. Tunable.

GM-270

TGS $34.99

On-glass 30-1200 MHz receive antenna

MM-270B $19.99

Dual Band 2M/70cm MICRO-MAG™ with a 1-1/8 in. black ABS rare earth magnetic base and stainless steel 20 in. whip. A 2M 1/4-wave and 70 cm 5/8-wave with unity gain and 1.5:1 VSWR throughout the bands. Rated for 50W on 2m and 25W on 70 cm. Has 9 ft. of RG-174 cable to a BNC connector.

MM-270B

Magnet Mount Antennas

VAA-002B $23.99

2 meter 1/4 wave antenna with a 3-1/4 in. magnetic base. 19 in. 17-7ph stainless steel whip and 12 ft. of cable with PL-259 connector. Can also be trimmed for 220 or 450 MHz operation. Black finish.

VAA-002BBN $27.99

Same, but with BNC antenna connector.

VAA-002B / VAA-002BBN

PAS

PAS $19.99

Surface Motorola mount with 17 ft. of RG58 cable with PL-259 connector. Installs in 3/4" hole in roof, fender or cowl mount.

PASMO

PASMO $7.99

PASMO Mount only, less cable and connector

Mounts

105AD $6.99

Mount Assembly with chrome-plated brass hex and nickel-plated SO-239. For Plug to plug connections.

105HD $3.99

Chrome Mount Assembly that mounts by bolting through a 1/2 in. hole. Chrome-plated brass

103S $24.99

Quick Disconnect mounting kit. One 3/8" x 24 base and five twist-lock connectors

120 $7.99

Radio Hump Mount. Saw-tooth design grips without damage to carpet. Adustable, Steel, baked black.

100ADT $9.99

Extra heavy duty aluminum 3-way mirror mount. 3/8" x 24 mount and SO-239 connection.

100ADN $10.99

Extra heavy-duty aluminum double groove mirror moount with 3/8" x 24 mount and SO-239 connection.

SS-100MOT $23.99

Stainless steel 3-way mirror mount with Motorola-style mount. Includeds 10 ft. of cable to a PL-259

DAK $13.99

Dual adapter mount with one lug and one SO-239. Accepts two PHF or other 3/8"x 24 mount antennas for vertical and horizontal dipole configuration.

2 Meters

PHB-144 $29.99

5/8 wave, 3dB gain over 1/4 wave, covers 144-174 MHz. Tuned, low loss coil with 1-1/8" threads to match Pro•am and 3/4 in. hole Motorola TAD/TAE mounts.Rated 100W, whip length 49 in.

CX-144 $17.99

5/8 wave, 3 dB gain over 1/4 wave. Heavy duty matching coil with standard 3/8" x 24 chrome-plated base. Rated at 100W, length 49 in.

PHB-144

CX-144

Dual Band 2M & 70CM +

MO144-440 $21.99

A dual band antenna to over it all! 19" Covers 2M/70cm plus works great for all band scanners 25 MHz-1.3 GHz. Stainless steel whip. Mount with 1-1/8" threads match 3/4" hole pro•am and Motorola TAD/TAE mounts. SWR less than 2:1. Gain: unity on 2m and 2.1dB over a 1/4 wave on 70 cm.

MO144-440

AB5

Multi-Band Mobile

AB-5 $119.99

Consists of a 4 ft. aluminum mast and tri-top adapter with resonators included for 10, 15, 20, 40 and 75 meters. Also operates on 6 meters. Mast fits any standard 3/8 x 24 thread mobile mount. The 10, 15, and 20 meter resonators work without extra tuning. The interchangeable 40 and 75 meter resonators are easily tuned with their tunable tips.

Utility

PAQA $8.99

A unity gain stainless steel UHF/VHF whip that covers 136 to 866 MHz with cutting required. Nickel/chrome plated brass base with 1-1/8" threads to match Pro•am and 3/4" hole Motorola TAD/TAE mounts. Includes cutting chart.

PAQA

PAT-2 $19.99

A chrome low profile trunk-lip mount including 17 ft. of RG-58 cable with PL-250 connector. Model **PAT-2B** is BLACK.

PAM $24.99

A 3-3/4 in. diameter low profile magnet Motorola mount pre-wired with 12 ft. of RG-58 cable to a PL-259 connector. Model **PAMB** is BLACK.

301 $16.99

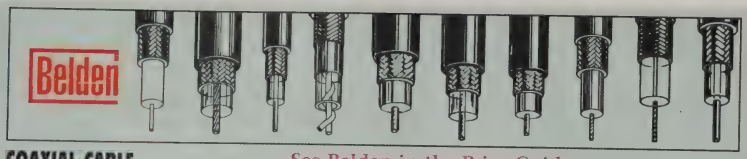
4 in. dia. with 3/8" x 24 mount.

401 $19.99

5 in. dia. with 3/8" x 24 mount.

MM-3401 $59.99

Maxi-Magnet mount kit features three 5 in. magnets in chrome cups spaced on a heavy duty aluminum frame. Prewired to a with 17 ft. of RG-58 cable to a PL-259. Accepts standard 3/8"x 24 mount antennas. Model **MM-3401B** has BLACK magnet cups.



COAXIAL CABLE

See Belden in the Price Guide

Model	Type	Dia. (in.)	Center conductor	Insulation type	Shield coverage	Jacket type	Imp. (Ω)	Vel. factor	Loss/100' 100 MHz
8216	RG-174 Sub-miniature	.11	26 AWG bare copper coat steel	Solid polyethylene	90% tinned copper braid	Black PVC	50Ω	66%	8.4 dB
8219	RG-58A/U	.195	20 AWG stranded bare copper	Foam polyethylene	96% tinned copper braid	Black PVC	53.5Ω	73%	4.5 dB
8240	RG-58/U	.195	20 AWG solid bare copper	Solid polyethylene	95% tinned copper braid	Black PVC	51.5Ω	66%	3.8 dB
8259	RG-58A/U	.193	20 AWG stranded tinned copper	Solid polyethylene	95% tinned copper braid	Black PVC	50Ω	66%	5.4 dB
8262	RG-58C/U non-contaminating	.195	20 AWG stranded tinned copper	Solid polyethylene	95% tinned copper braid	Black. non-contaminating PVC	50Ω	66%	5.4 dB
9258	RG-8X Mini-8	.242	16 AWG stranded bare copper	Foam polyethylene	95% bare copper braid	Black PVC	50	82%	3.1 dB
8214	RG-8/U	.403	11 AWG stranded bare copper	Foam polyethylene	97% bare copper braid	Black PVC	50Ω	78%	1.7 dB
8237	RG-8/U	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black PVC	52Ω	66%	1.9 dB
8267	RG-213/U non-contaminating	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black. non-containating PCV	50Ω	66%	2.1 dB
9913	Low loss semi-flexible RG-8/U	.405	10 AWG solid bare copper	Semi-solid polyethylene	100% bonded foil plus 90% tinned copper. braid	Black PVC	50Ω	84%	1.3 dB
9913F7	Low loss flexible RG-8/U	.405	10 AWG stranded bare copper	Gas-injected foam polyethylene	100% bonded foil plus 90% tinned copper braid	Black Belflex®	50Ω	84%	1.5 dB
8241	RG-59/U	.242	23 AWG solid bare copper	Solid polyethylene	95% bare copper braid	Black polyethylene	75Ω	66%	3.4 dB
8213	RG-11/U	.405	AWG 14 solid bare copper	Gas-injected foam polyethylene	97% bare copper braid	Black polyethylene	75Ω	84%	1.3 dB
8238	RG-11/U	.405	18 AWG stranded tinned copper.	Semi-foam polyethylene	97% bare copper braid	Black PVC	75Ω	66%	2.0 dB

ROTOR CABLE

8448 Standard duty, 8 wire. Up to 100 ft. runs. Six #22 and two #18 AWG tinned copper conductors. PVC insulation and PVC jacket.

9405 Heavy duty, 8 wire. Over 100 ft. runs. Six #18 and two #16 AWG tinned copper conductors. PVC insulation and PVC jacket.

8484 Standard duty, 4 wire. Four #20 AWG tinned copper conductors. PVC insulation and PVC jacket.

See Belden in the Price Guide

PREASSEMBLED COAXIAL HOOK-UP CABLES (INSTALLED)

9354 50' RG-8/U low-loss foam, PL-259s.. **$54.99**
9355 75' RG-8/U low-loss foam, PL-259s.... **74.99**
9356 100' RG-8/U low-loss foam, PL-259s.. **84.99**

ANTENNA & GROUND WIRE

8000 #14 AWG (7x22) stranded bare copper-covered steel antenna wire.
8018 #8 AWG (solid) soft annealed aluminum ground wire – multiples of 50 ft.

Connecting you to the World

CABLE XPERTS INC

FLAT GROUNDING BRAID

Flat, flexible, and tinned for easy soldering. 1" size primarily used for grounding tower legs to ground rods or central point in a shack. From the central point, use 1/2" size to all equipment separately for best protection.

2332 1/2", 10 gauge, rated at 53A ..... per ft. **59¢**
2332 100 100 foot roll of above..... **$52.99**
235 1", 7 gauge, rated at 85 amps..... per ft. **99¢**
235 100 100 foot roll of above **$92.99**

COAX-SEAL

UNV 104 Hand Moldable Plastic for Antenna Component Protection The quick and effective way to seal and protect all types of coaxial fittings, baluns, antenna parts and connectors. Simply wrap it on like regular tape, then mold it to any shape. It adheres tightly to metal, vinyl and polyvinyl coax outer jackets. Stays flexible and sealed at any temperature for years to resist moisture penetration and deterioration. Its permanent flexibility makes it possible to remove and reinstall fittings, then reseal just by reforming the same material. Non toxic and non-contaminating roll, 1/2"w x 60"... **$3.99**

MFJ ENTERPRISES, INC.

341S (SO-239)/**341M** (NMO) **Permanent Mobile Hard Mounts** Quality antenna mounts with 14' of RG-58A/U coaxial cable and attached PL-259 connector. Easily snakes around any vehicle to the obtain the best operating position. Perfect for MFJ *RuffRider*™ or other brands of mobile VHF/UHF antennas..... ea. **$19.99**

WINEGARD®
Clearly the World's Best®

TV-2900 Weatherproof Transformer 82 channel, matching transformer for indoor or outdoor use. Adapts 75Ω coaxial cable with F-connector to terminals of a 300Ω TV antenna, TV set or coupler. Includes F-connector and boot..... **$2.99**

RG-6 75Ω TV Coaxial Cable with cellular poly dielectric, #20 copperweld center conductor, 100% aluminum foil shield and 40% aluminum braid shield provides low-loss, good conductivity, flexibility and tensile strength. Weather-proof F-connectors installed.

CX-0625 25 ft. length..... **$10.99**
CX-0650 50 ft. length **15.99**
CX-0675 75 ft. length **19.99**
CX-6100 100 ft. length **24.99**

synthetic textiles, inc.

Black Dacron® Polyester Rope Constructed of strong double braid Dacron® polyester. It's black for UV protection and has excellent resistance to weather, mildew and abrasion. The rope ties and cuts easily and ends seal effectively with the application of a small flame or hot tool.

After a small initial "set" due to tightening of the braid, it has virtually no long term stretch, making it ideal for supporting dipoles, long wires, etc. Also, great for non-resonant guying of masts or towers. When used as an overhead boom support rope for beam antennas, it eliminates a conductive wire from the RF field, which is especially important in VHF/UHF applications.

100' 100 ft., 260+ lbs., 3/32" **$7.99**
100' 3/16 100 ft., 770+ lbs., 3/16" **16.99**
100' 5/16 100 ft., 1790+ lbs., 5/16" **22.99**
350' 350 ft., 770+ lbs., 3/16" **44.99**

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95% braid coverage
Light weight
Ultra-violet resistant jacket
With PL259 each end

CXP1318FX
2.8db @ 450MHz
Low loss
Double-shielded
Non-contaminating & direct burial jacket
With PL259 each end or "N" male ea. end

RG8X/Mini Foam
2.0db @ 30MHz
95% braid coverage
Low power
Small diameter
Ultra-violet resistant jacket
With PL259 each end

RG213/U Mil-Spec
1.2db @ 30MHz
High power capabilities
Non-contaminating & direct burial jacket
With PL259 each end

For optimum performance from your communications equipment. These precision USA made and tested assemblies will provide years of great service. Guaranteed to perform to specifications. For excellent cabling results, you can depend on CABLE X-PERTS, INC.

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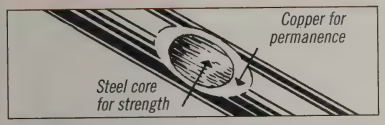
See Price Guide for Cable X-perts pricing.

CASTLE RIDGE PRODUCTS, INC.



COPPERWELD® Antenna Wire Forge-welding makes the two metals inseparable! Solid bare copper-over-steel wire – the best for antennas. Very strong, the steel core has very little stretch and long service life. The copper covering provides low RF resistance and solders easily. 12, 14 or 18 gauge.

AN-122 100 ft. #12 ..... **$29.99**
AN-123 150 ft. #12 ..... **39.99**
AN-124 250 ft. #12 ..... **59.99**
AN-126 500 ft. #12 ..... **99.99**
AN-128 1000 ft. #12 ..... **179.99**
AN-142 100 ft. #14 ..... **24.99**
AN-143 150 ft. #14 ..... **29.99**
AN-144 250 ft. #14 ..... **39.99**
AN-146 500 ft. #14 ..... **69.99**
AN-148 1000 ft. #14 ..... **119.99**
AN-181 250 ft. #18 ..... **17.99**
AN-182 500 ft. #18 ..... **29.99**

AIM

ROTARY COAX CABLE STRIPPERS

For quick, clean prep of coaxial cable without damage. Insert coax, turn clockwise 4 or 5 times.

24-7735P for RG-58, RG-59, RG-62 ..... **$21.99**
24-7736P for RG-6, RG-59, 8281 ..... **21.99**
24-7739P for RG-8, RG-11, RG-213 ..... **28.99**

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Updated regularly on the web.
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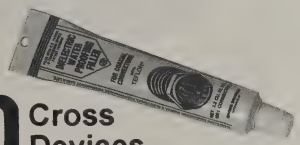


Cross Devices

STUFF Dielectric Water-proof Connector Filler Seals out moisture. High purity macroscopic foam that dielectrically simulates the coaxial cable core. Fill coax connectors and tighten. The filler material hydraulically channels into all connector voids and points of moisture entry. Non-hardening, easy to remove. No silicones, or other additives to harm coax cable material ..... (tube) **$4.99**

PENETROX™

PENETROX® A Recommended for use on aluminum-to-aluminum and aluminum-to-copper connectors, on bare conductors, and bus bars. Good for all voltages. Assures a high conductivity joint by sealing out air and moisture to prevent corrosion and reformation of oxide film. Apply to mating pieces of antenna components, tubing, etc. during assembly to provide a non-corrosive, low resistance and air tight seal. Makes later disassembly a breeze..... (4oz bottle) **$12.99**

Van Gorden Engineering

BALUNS & INSULATORS

Hi-Q 1:1 or **Hi-Q 4:1** Baluns For dipoles, yagis, inverted vees and doublets. Provides 1:1 or 4:1 impedance ratio for matching unbalanced coaxial cable to balanced antennas. Covers 3–40MHz with a 1.5KW rating. Reduces feedline radiation for more power into antenna, and reduced TVI/BCI problems. Built-in DC ground reduces static noise and provides some lightning protecton. Convenient SO-239 connector and center support eye hook; weatherproof ea. **$14.99**

ANTENNA CENTE Hi-Q Antenna Center Insulator

Insulator only, no balun. Replaces egg-type center insulator. Small, rugged, lightweight, weatherproof, SO-239 connector, center supporting eye hook **$6.99**

ANTENNA END IN End insulators . pair **$4.99**
DOG BONE Antenna insulators ..... each **99¢**

LADDER LINE

450 OHM 100 18 ga. 100' insulated **$14.99**
450 OHM 14 100 14 ga. 100' insulated.. **29.99**
450 OHM 1000 18 ga. 1000' insulated. **109.99**
450 OHM 14 1000 14 ga. 1000' insul.. **229.99**

WHITE NYLON ROPE

NR-100 100' roll, antenna guy rope **$4.99**
NR-1000 1000' roll, antenna guy rope **44.99**

N CONNECTOR

N CONNECTOR Male connector for Belden 9913 and 8214 coax **$4.99**

PREASSEMBLED COAXIAL HOOK-UPS

8X-1.5ST 1.5' RG-8X, silver-tef. PL-259s .. **$7.99**
8X-3ST 3' RG-8X w/silver-teflon PL-259s.... **8.99**
8X-6ST 6' RG-8X w/silver-teflon PL-259s . **10.99**
8X-12ST 12' RG-8X, silver-teflon PL-259s **11.99**
8X-25ST 25' RG-8X, silver-teflon PL-259s **15.99**
8X-50ST 50' RG-8X, silver-teflon PL-259s **24.99**
8X-75ST 75' RG-8X, silver-teflon PL-259s **31.99**
8X-100ST 100' RG-8X, silver-tef. PL-259s **37.99**
213-25ST 25' RG-213, silver-tef. PL-259s . **25.99**
213-50ST 50' RG-213, silver-tef. PL-259s . **38.99**
213-75ST 75' RG-213, silver-tef. PL-259s . **54.99**
213-100ST 100' RG-213, sil.-tef. PL-259 .. **72.99**

UNADILLA

W2AU FERRITE BALUNS

These baluns replaces center insulator and provide a smooth transition from unbalanced coaxial transmission lines to balanced antennas; dipoles, quads and yagis. Produces proper current distribution resulting in reduced feedline radiation for maximum power transfer, gain and reduced TVI/BCI. DC grounded for lighting protection, center eye hook for support. Usable from 1.8-40MHz, 2KW PEP, So-239 connector..

W2AU 1:1 1.1, 1.8-40MHz ferrite **$24.99**
W2AU 4:1 1.1, 1.8-40MHz ferrite **24.99**
W2AU BEAM 1.1, Beam balun **24.99**

W2DU CHOKE BALUNS

High efficiency, *transformerless* 1:1 baluns. The HF model is the only one available that works on 160 meters! They all handle a VSWR up to 5:1 at the legal power limit, allowing use with antenna tuners. The VHF model eliminates the usual rod and tube hardware balun assembly normally used at those frequencies.

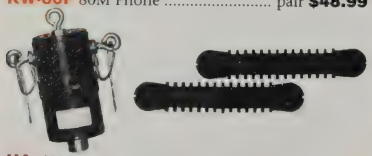
W2DU-HF 1:1, 1.8-30MHz choke..... **$26.99**
W2DU-VHF 1:1, 30-250MHz choke **26.99**
W2DU BEAM 1:1, 40-10m choke..... **26.99**

REYCO ANTENNA TRAPS

Add traps to your dipole for multiband operation on two to seven bands. Add the 40M pair (KW-40) and get "perfect dipole" performance on 40 and 80M. Add five pair and work 10, 15, 20, 40, 80 and 160M with low SWR.

Selecting traps: List the bands you want to cover, listing the Highest Frequency band first. You will need a pair of traps for each band except the one with the Lowest Frequency.

KW-10 10M..... pair **$41.99**
KW-12 12M..... pair **$41.99**
KW-15 15M..... pair **$41.99**
KW-17 17M..... pair **$41.99**
KW-20 20M..... pair **$41.99**
KW-30 30M..... pair **$42.99**
KW-40 40M..... pair **$42.99**
KW-80CW 80M CW ..... pair **$48.99**
KW-80F 80M Phone ..... pair **$48.99**



HA AN-Insulator™ *(left)* A strong center dipole insulator with built-in lightning protection. SO-239 connector, 3.5" long x 1.75" dia **$9.99**

HE END-Insulator™ *(right)* A shatter-proof antenna end insulator. Tough, includes voltage path extenders, positive wire track. Low loss, lightweight and long leakage path. 5.5" long x 1"dia. .... pair **$6.99**

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LDG ELECTRONICS — Automatic Antenna Tuners & Accessories

Common Tuner Features: • 1.8 to 54 MHz Coverage • Microprocessor-controlled "L" Network analyzes SWR and automatically tunes antennas • Use with all coax-fed dipoles, verticals, etc. • Optional baluns for ladder line and end-fed antennas • 12V DC (nominal) operation • Low power consumption

AT-100PRO Memory Autotuner – Rated: 0.1 to 125W SSB and CW (50W on 6M). Built-in two-position antenna switch with over 2000 memories for each antenna. LED bargraph shows RF power, SWR and status. Latching relays allow powering-off once tuned. Dim: 7.5"w x 5.5"h x 2.0"d. Weight: 1.5 lbs..... **$199.99**

AT-1000 Desktop High Power Automatic Antenna Tuner – Rated: 1000W SSB, 750W CW and 500W Digital (100W on 6M). Up/Down push-buttons allow manual fine tuning. Cross-Needle meter simultaneously shows Forward/Reverse Power & SWR. Optional remote head. Dim: 13"w x 3"h x 9"d. Weight: 6 lbs **$549.99**

RC-1000 Remote Control Head – For the LDG AT-1000. Provides all control. The LED bargraph shows RF power, SWR and status. Includes a 10 ft. cable and mounting bracket. Extends with DB-9 cables to over 100 ft. Dim: 5.5"w x 3"h x 2"d. Weight: 1 lb.. **$99.99**

AT-897 Automatic Antenna Tuner – A specialized bolt-on tuner for Yaesu FT-897; a good alternative replacement for the Yaesu FC-30. Consumes ZERO power when not tuning, perfect for battery operation. Powers from the FT-897 CAT port. A second CAT port allows simultaneous use of computer control and tuner. Dim: 1.5"w x 3.25"h x 10.5"d, Wt. 2 lbs.. **$199.99**

MAC-600 Motorized Antenna Controller Microprocessor controlled; works with most 100W radios and 12VDC, 1.8- 54 MHz motorized antennas. Push one button and it automatically finds the lowest SWR. Only a simple connection between radio and antenna for complete control; no magnets or counters needed. The modulated motor drive provides precision speed control, including a special gravity compensation algorithm. Optional interfaces for Alinco, Icom, Kenwood and Yaesu radios. Rated for 10 to 600W. Dim. 5"w x 1.5"h x 3.75"d, Wt. 1 lb **$139.99**

Z-100 Automatic Antenna Tuner – Power consumption is near ZERO when not tuning, perfect for battery operation. Rated: 0.1-125W (50W on 6M). 200 fast memories. Latching relays allow the Z-100 to be powered off once tuned. Optional interfaces for DC power and control for Alinco, Icom, Kenwood and Yaesu radios. Dim: 5.5"w x 1.5"h x 5.25"d. Weight: 14 oz..... **$149.99**

RT-11 Remote Mounting Automatic Antenna Tuner - For Mobile, Marine, and remote applications. Weather resistant, ABS plastic enclosure with mounting flanges. Rated: 0.1-125W (50W on 6M). Latching relays allow powering-off once tuned. Optional remote head and interface cables for Alinco, Icom and Kenwood radios. Dim: 8.5"w x 3"h x 5.5"d, Weight: 2.5 lbs **$199.99**

RT-REMOTE Remote Control Head – Exclusively for the RT-11, allowing control of all functions. Dim: 4.0"w x 2.2"d x 0.8"h, Wt. 1 lb **$39.99**

INTERFACES

Y-OTT One Touch interface – Plugs into the CAT connector on the back of Yaesu FT-100D, 817, 857 and FT-897. Powers LDG Z-100, AT100Pro, AT-11MP, or MAC-600 directly from the radio (except FT-817), without an additional power source. Press the TUNE button on the tuner and the interface changes the mode on the radio and commands it to transmit. After tuning, the radio is restored to the previous mode..... **$59.99**

K-OTT One-Touch interface Plugs into ANY Kenwood radio that supports the Kenwood AT-300 or AT-50 antenna tuners and provides power and control signals for the LDG Z-100, AT-100Pro, AT-11, RT-11 or MAC-600. Allows the user to activate the tuning sequence or bypass the autotuner right from the front panel of the radio **$59.99**

INTERFACE CABLES

for the AT-100Pro, Z-100, RT-11 & MAC-600

AC-1 Power and Control adapter **$8.99**
AL-IC1 Alinco 10 ft. Interface Cable..... **$20.99**
Icom-IC1 Icom 10 ft. interface cable **$20.99**
Icom-IC2 Icom 8 in. interface cable..... **$8.99**

BALUNS

Tune Balanced Line and Long Wires antennas with LDG Automatic Antenna Tuners* or with any of your own antenna projects. Rated: 200W from 1.8 to 30 MHz. Dim: 2"w x 1.5"d x 4.5"d, Wt. 6 oz. Order **RBA-1:1** (1:1) or **RBA-1** (4:1) .. **$30.99**

** Except AT-1000*

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MFJ ENTERPRISES, INC.

ANTENNA TUNERS

902 Tiny Travel Tuner Only 4.5"w x 2.25"h x 3"d, but rated for 150W. Tunes nearly any coax-fed or random length wire antenna for 80-10M. Perfect for "take along" rigs like IC-706MKII-G, FT-100D, TS-50S, QRP rigs and others with built-in SWR meter **$79.99**

922 VHF/UHF Dual Band Antenna Tuner Great for HTs, mobiles or amps up to 150W. Using the included tool, adjust your antenna system for a low SWR on VHF, 136–175MHz and UHF, 420–460MHz. Meter reads both SWR and power in 60/150W ranges. 4" x 2" x 1.25"- carry it in your car, while camping, etc **$79.99**

945E Mobile Tuner Covers 1.8–30MHz plus 6M, and rated at 300W PEP. Matches coaxial cable only. Extends mobile antenna bandwidth and eliminates having to stop and adjust the whip length when making frequency changes. Lighted cross-needle SWR bridge and power meter with 50/300 and 5/30W ranges. 8"w x 2"h x 6"d..... **$99.99**

941E Versa Tuner II Covers 1.8–30MHz and rated at 300W PEP. *Matches everything!* – coaxial fed dipoles, vees, whips, verticals, beams, random wires, balanced lines. Built-in 4:1 balun. Lighted cross-needle SWR/power meter with 300/50W and 30/5W ranges. 8-position antenna selector for 2 coax lines, random wire or balanced line or an external dummy load. 10.625"w x 2.875"h x 7"d **$109.99**

934 Antenna Tuner/Artificial Ground Makes a random wire an effective antenna. Combines best features of 941E and 931 into one. Full-featured 1.8–30MHz, 300W tuner with cross-needle meter and ground matching knob that lets you switch in inductance to bring an attached radom length wire to a low impedance current point, forming an artificial ground. 10.625"w x 3.5"h x 7"d..... **$169.99**

948 All the features of the 941E without the dummy load. Has larger lighted peak reading cross-needle SWR/power meter **$119.99**

949E Deluxe Versa Tuner II Same power, tuning and switching capability as the 941E with a larger, lighted peak or average reading cross-needle SWR/wattmeter. *PreTune™* allows off-air tune-up into a built-in 50Ω dummy load. 10.625"w x 2.875"h x 7"d..... **$139.99**

969 Deluxe Versa Tuner II Covers 6–160M and rated at 300W. Features a roller inductor coil with a spinner knob and 3-digit turns counter. Lighted peak/average reading cross-needle SWR/wattmeter with 30/300W ranges. Tunes coaxial cable, random wire or balanced feedline, has a built-in 4:1 balun. QRM-Free *PreTune™* allows off-air tune-up into a built-in 50Ω 300W dummy load. Convenient 8-position antenna selector switch. 10.5"w x 3.875"h x 9.5"d. **$189.99**

962D Versa Tuner III Covers 1.8–30MHz and rated at 1.5KW PEP. Matches coaxial fed antennas, random or balanced line. Has a built-in 4:1 balun. Lighted peak/average cross-needle SWR/wattmeter with 200/2000W ranges. 6-position selector for 2 coax lines (direct or thru), random and balanced lines. 10.5"w x 3.875"h x 15"d **$249.99**

986 Differential-T Tuner™ Covers 1.8–30MHz , rated at 3KW PEP. Uses a broadband T-network with roller inductor and differential capacitor. Tunes most antennas using only two knobs. Lighted peak or average reading cross-needle SWR/wattmeter with 200/50W and 2000/500W ranges. Inductor spinner knob, 3-digit turns counter, 6-position antenna selector, external dummy load switch, 4:1 balun. 10.75"w x 4.5"h x 15"d..... **$299.99**

989C Versa Tuner V Covers 1.8–30MHz, rated at 1.5KW PEP with heavy-duty components. Matches nearly every type of antenna. Roller inductor with spinner knob and 3-digit turns counter. Lighted peak/average reading cross-needle SWR/wattmeter with 200/2000W ranges. Built-in 50Ω 300W dummy load, heavy-duty 4:1 balun and 6-position antenna selector switch. 10.75"w x 4.5"h x 15"d..... **$319.99**

993 IntelliTuner™ 300W Auto Tuner Measures, calculates, then automatically tunes. Remembers most balanced/unbalanced antenna from 1.8-30MHz to 300W SSB or 150W CW. Cross-needle meter shows forward/reflected power and SWR. Digital LCD shows antenna selection, frequency, and more. Manual tuning possible without transmit. • 4:1 current balun • Matches 6 to 1600Ω • Audible SWR indicator • 2-position antenna switch • 10"w x 2.75"h x 9"d..... **$239.99**

991 IntelliTuner™ 150W Auto Tuner Similar to 993, but rated 150W SSB/100W CW. No digital LCD, audible SWR indicator, antenna switch or 4:1 current balun. Matches 6 to 3200Ω..... **$199.99**

994 IntelliTuner™ 600W Auto Tuner 600W SSB/300W CW 993 (looks like 991), but no digital LCD, audible SWR indicator, antenna switch or 4:1 current balun. Matches 12 to 800Ω. Low power tuning with any external amp bypassed **$329.99**

974H Balanced Line Tuner Matches 50Ω output transceivers to virtually any balanced-line fed antenna. Peak and average forward power, reflected power, and SWR are displayed on a 3 inch illuminated cross-needle meter. Matching Range: 12–2000 ohms continuously from 1.8–54 MHz. Power: 300W SSB PEP transmitter output and 150W CW. Features a fully balanced wide range T-Network using four gear driven 1000V air variable capacitors and a high-Q air wound tapped inductor for 80–10 meters; separate inductors are used for 6 and 160 meters. A 1:1 current balun is incorporated in the low impedance 50 ohm input side to convert the balanced T-Network to unbalanced operation. Rear panel connectors for coaxial and single or two wire feedlines. 7.5"w x 6"h x 8"d **$189.99**

974 Balanced Line Antenna Tuner – Same as the 974H but 3.5–54MHz (no 1.8 MHz) **$169.99**

1703 Antenna/Transmitter RF Safety Switch Connects two rigs and two antennas, and switches between the two. Designed to keep your transceiver from transmitting while not terminated. Usable from 1.8–30 MHz and is rated at up to 300W PEP SSB/150W CW on 50–75Ω unbalanced lines. All metal cabinet with mounting tabs **$19.99**

VECTRONICS

ANTENNA TUNERS

VC-300M Mobile Tuner Compact and lightweight for base or mobile use. Tunes verticals, dipoles, inverted Vs, beams and mobile whips fed by coaxial cable. Covers 1.8–30MHz at 300W continuous power. The dual-movement cross-needle meter simultaneously monitors RF power output and SWR. 7.25"w x 3.5"h x 8.75"d, 2.5 lbs **$99.99**

VC-300DLP Antenna Tuner A quality, economical tuner. Covers 1.8–30MHz at 300W continuous power capability from 3.5–30MHz and 150W on 1.8 MHz. Built-in dummy load, dual-movement cross-needle peak or average reading meter. Compatible with most antennas – coax-fed, balanced or single wire. Built-in 4:1 balun and 6-position antenna switch. 10.25"w x 9.5"d x 3.5"h, 3.5 lbs.. **$149.99**

Palstar, Inc. high quality, antenna tuners designed by Hams for Hams. American made, solidly constructed and built to last.

AT-1KM Antenna Tuner Featuring differential capacitor tuning with two stators and one rotor. Ease of use utilizing only two controls to operate for tuning with a precision ceramic body roller Inductor and high power balun. • 1.8-30MHz • 1200W SSB • Palstar designed ceramic roller inductor • Wide impedence matching range • Illuminated cross-needle SWR/wattmeter • 0-300W/0-3000W ranges • High-power 4:1 balun • Powder coated front panel and top cover • 10.5"w x 4.5"h x 11"d, 8 lbs..... **$359.99**

AT-1500CV

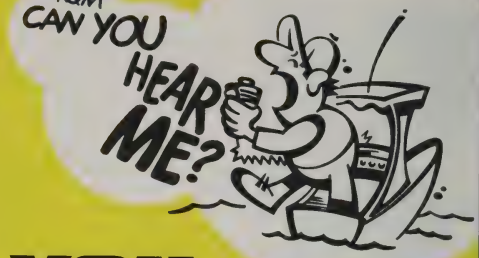
T-type Antenna Tuner that can handle up to 1500W PEP with low profile construction. Features edge-wound, silver-plated, roller inductor for high power use. • 1.8-30MHz • Matches dipoles, center-fed doublets, G5RV's balanced feeders, verticals, single wire, delta loops, beams, windoms, inverted V's • Built in 4:1 balun for balanced feeders • 6-position antenna selector switching and bypass position for straight-thru use with SWR and power monitoring • Average reading to 3000W • Lit cross-needle SWR/wattmeter • 12.5"w x 4.5"h x 12"d, 10 lbs..... **$459.99**

AT-1500BAL

Double L Balanced Antenna Tuner High power, dual-roller inductor antenna tuner with balanced output. • 160–10M • 1500W PEP • 2 edgewound, silver-plated, ball bearing drive, roller inductors crank handle, driven synchronously with toothed fiberglass belt • 44uH total inductance for extended 160M • Switchable 500pF fixed capacitor (160M) • 160–20M 2500 ± j2500, 15M 1000 ± j1000, 10M 500 ± j500 impedance • New low minimum variable capacitor @ 460pf/4.5Kv with vernier drive • 12.5"w x 6.5"h x 15"d, 16 lbs..... **$695.99**

AT-4K

T-Match Network Tuner The typical unbalanced, 4:1-balun tuner exposes the balun to impedance and reactance that it's not designed to handle. The AT4K utilizes a 1:1 unbalanced-to-balanced transformer at the input. When properly tuned, a 50Ω impedance will be presented both to in and output. • 2500W single tone continuous • Unbalanced/balanced output with high-power balun at input • T-Match circuit (8 to 2000Ω) • Custom, large value (500pf), variable capacitors (6kV rated) • 10 Amp, edge-wound, solid copper, silver-plated roller inductor • Cross-needle SWR/wattmeter • 7"h x 15"w x 16"d, 20 lbs **$895.99**



Do YOU want to be heard?

OF COURSE! Then use the **SGC Smartuner™**— the Essential link between your HF transceiver and antenna. Matching at the transceiver is good, but matching at the antenna is better. SGC Smartuners are designed to do just that. They operate completely independently to provide the best match between the feed line and the antenna, eliminating SWR problems completely.

SGC Smartuners are designed to work with any transceiver and any antenna. They are fully automated, intelligent enough to select the best match between feed line and antenna in seconds and remember it so it can recall that match in milliseconds. The Smartuner sets the standard. It is the original and still the best.

SG-231 *Coupler*
Cat. # 54-17

Once you've learned how the Smartuner works, you won't want anything else!

Smart Choice! Smartuner!

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phone us at
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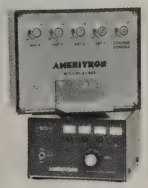
SGC, Inc. 13737 SE 26th St. Bellevue, WA 98005

SGC
Your HF Solution

ANTENNA TUNER

ATR-30 True Legal Limit™ Antenna Tuner Covers 1.8–30MHz, including MARS and WARC. Designed for sustained RF output over 1500W CW and 3000W SSB, also 160M. Uses High-Q, high-current, edge-wound, arc-free roller inductor with heavy duty 500pf capacitor in T-match network. Matches most antennas using either coax or balanced feedlines. Cross-needle, peak-reading SWR/wattmeter, 3000/300W ranges, measures peak/average forward/reflected power plus VSWR, illum. Includes 3-core choke balun, 6-position antenna switch and 6:1 vernier reduction drives, turns counter. Requires 12VDC or internal 9V. **$549.99**

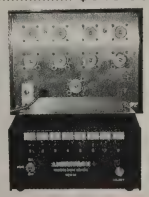
REMOTE CONTROLLED ANTENNA SWITCHES



RCS-4 Select up to 4 different HF antennas by supplying control voltages thru the coax without the need for a separate control line. The weatherproof switch box can be tower, mast or wall mounted. Uses 3 heavy duty 10A contact relays on a fiberglass circuit board 5.25"d x 7"w x 3"h. Safe, 14VDC control. Indoor control console locates at operating position. 6"d x 6"w x 2.5"h. 120VAC. Rated 1.8–30MHz, 2KW **$129.99**

RCS-8V Independently or simultaneously select up to 5 different antennas using one coaxial feedline and 8-wire control cable. Internal wiring allows grounding or floating unused terminals as required. Rated at 5KW below 30MHz, and 1KW up to 150MHz **$139.99**

RCS-8VN Same as RCS-8V but with N-type female connectors **$149.99**



RCS-10 Select up to eight HF antennas using one feed line and a single four conductor control line (not supplied). Long life sealed relays with 16A current rating. Up to 100MHz with low VSWR. Over 5KW below 30MHz (matched) **$149.99**

Palomar Engineers

PT-340 Tuner-Tuner Eliminate QRM, overheated final tubes & devices by adjusting the station antenna tuner without transmitting. Installs permanently between rig and tuner. Just turn on, and listen to the noise output in a receiver, then adjust the station tuner controls for a dip in the noise (a null). Covers 1.7–30MHz. Uses 9V battery. 6"w x 5"h x 3"d **$99.99**

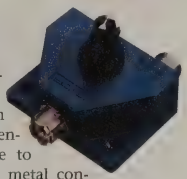
ICOM

AH-2B Antenna Element Provides 7 through 50MHz mobile operation when used with the AH-4 antenna tuner. Includes hardware for mounting to a tow bar, 8.2 ft. antenna. **$299.99**

AH-4 Automatic Antenna Tuner *Fully automatic* – covers 3.5MHz–54MHz with a 23' or longer wire antenna, or 7–54MHz with optional AH-2B element. It measures 6.7"w x 2.7"h x 9"d for easy installation in a variety of locations. Weather-resistant construction, using rubber gasket seals, enables operation in all conditions. Handles 120W PEP, requires only 5–15W for tuning. Designed for use with Icom HF transceivers. Just push the [TUNER] switch and the AH-4 auto adjusts to the minimum SWR in less than 2.5 seconds. Up to 45 memories store settings to provide 1-second retuning. Supplied with mounting kit, 16' control and coaxial cables, PL-259s. Requires 13.8 VDC..... **$259.99**

DAIWA

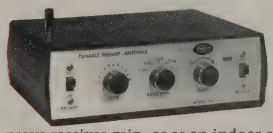
industry co. ltd.



CS-201 2-Position Coaxial Switch A high quality coaxial switch with excellent high frequency RF characteristics due to cavity and heavy diecast metal construction. Frequency range up to 600MHz with less than 0.12 VSWR, less than 0.2dB insertion loss and 60dB isolation between terminals. Rated at 2.5 KW PEP or 1KW CW. Auto grounding of unused terminals, SO-239 connectors **$26.99**

AMECO

PT-3 Preamplifier Covers 2-54MHz and useable with either a receiver or transceiver. A tunable low noise dual-gate FET circuit provides >20dB gain, low N.F. and improved spurious and image rejection. An RF sensed switch with variable delay automatically bypasses to antenna on transmit. Second receiver or antenna capability. 12V DC_i or use P-12T AC adapter ($9.99). 2.5"h x 8.75"w x 6.5"d... **$124.99**



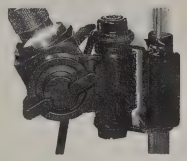
TPA Tunable Preamp/Active Antenna Use as a preamplifier to improve receiver gain, or as an indoor active antenna. Covers 0.22 –30MHz in 5 bands. A dual-gate FET device provides an excellent N.F. and >20 dB gain. As a preamplifier, the input matches most antennas; long wire, 300Ω and random lengths. When no external antenna is available, the preamplifier's built-in 30 in. collapsible whip gives great results. Uses 9V battery or P-9T AC adapter ($9.99). 1.5"h x 8"w x 6.5"d..... **$76.99**

MFJ

MFJ ENTERPRISES, INC.

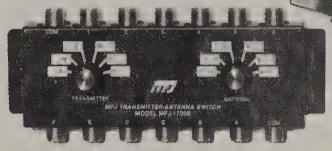
ANTENNA MOUNTS

310 HT Antenna Window Mount Clip Your HT rubber duck antenna radiates poorly inside your car due to the shielding effect of the roof, doors, etc. Detach the duck from your HT and install on this handy BNC window mount clip. It holds your antenna securely on the outside of your car's window where it can radiate freely. Quick and easy to install and remove. Comes with 10' of flexible mini-coaxial cable **$14.99**



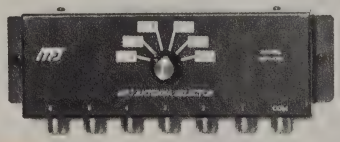
340 Mirror or Luggage Mount For mounting VHF/UHF and medium-size HF antennas on mirror, luggage rack or spare tire carrier of truck, van, RV or SUV **$34.99**

345 Trunk/Hatchback Lip Mount Mounts on any lip on you vehicle. An extra-wide 4-inch lip and large reinforcing tabs on each side safely distributes the load. Mounts at any angle and allows at any desired angle **$34.99**



COAXIAL SWITCHES

1700C Antenna and Transceiver Switch with Lightning Protection Up to 6 antennas and 6 rigs in any combination. Leave in line to operate with any combination 50 or 75Ω. Handles 2kW PEP or 1kW CW (1.8-30MHz). 10"w x 3"h x 1.5"d **$89.99**



1701 Antenna Switch Six positions, for 50-75Ω systems. Rated for 2KW PEP or 1KW CW from 1.8–30MHz. Unused positions are grounded for lightning protection. 10"w x 3"h x 1.5"d... **$59.99**

1702C Antenna Switch 2 positions + center ground. 50Ω, rated to 500MHz with <0.2dB loss, 2.5kW PEP or 1kW CW. >60dB isolation @ 300MHz or >50dB @ 450MHz. Unused terminal auto grounds for lightning protection..... **$24.99**

1702CN Lowest loss on UHF. Uses Type N connectors which are good up to 1.1GHz..... **$34.99**

1704 Antenna Switch 4 positions + center ground. 50Ω, rated to 500MHz with <0.2dB loss, 2.5kW PEP, 1kW CW, >50 dB isolation @ 500MHz. Includes replaceable lightning protection..... **$64.99**

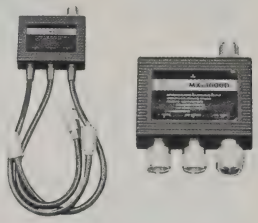
1704N with Type N's..... **$74.99**

DUPLEXERS

Type	SO239 PL259/PL259	SO239 PL259/Nmale	SO239 SO239/SO239	SO239 PL259/PL259	SO239 PL259/Nmale	Nfemale PL259/Nmale	PL259 SO239/SO239
Leads	No	No	No	Yes	Yes	No	Yes
2m/440	Comet CF4160K Diamond MX72D MFJ 916	Comet CF4160I	Comet CF4160J	Comet CF416A Comet CF530 Diamond MX72H	Comet CF416B Diamond MX72N Yaesu AD3	Comet CF416C Comet CF416W	
2m/220	Diamond MX214D			Comet CF142			
HF/6 to 440				Comet CF360A			Comet CF360B
HF to 6/2m				Comet CF706A Diamond MX62M			

TRIPLEXERS

Type	Leads	HF/6/2/440/1200	HF/6/2/440	2/220/440
Nfemale PL259/PL259/Nmale	No	Comet CFX4310C		
SO239 PL259/PL259/PL259	Yes	Diamond MX2000	Comet CFX514	Comet CFX324A Diamond MX324
SO239 PL259/PL259/PL259	No		Comet CFX5140	Comet CFX324B Diamond MX324D
Nfemale PL259/PL259/Nmale	Yes	Diamond MX3000		
SO239 PL259/PL259/Nmale	Yes		Comet CFX514N	
SO239 SO239/SO239/SO239	No		Comet CFX514J	



For duplexer/triplexer prices, see the Price Guide under each respective manufacturer.

Kleinhuis
North America, Inc.

1309 Isolated Ground Bar For grounding data patch panel racks & marine applications. Provides additional panel, sub-panel or control panel grounding. Lay-in style. Adapts easily for design/build applications, mounts to back panel or wall surface. Corrosion resistant, nickel-plated, copper clamping rail. Includes locking protective hinged cover. UL listed, CSA approved. 600V max. Accepts 8-12 (AWG) stranded or solid copper wire. 7.5"w x 1.75"h **$14.99**

Ladder-Loc® Center Insulator & Support Provides convenient attachment of 450Ω ladderline to various dipoles. Minimizes feedline flexing at the antenna feedpoint and ensures a long lasting, trouble-free installation. A top attachment point is provided for attaching a center support rope. UV stabilized for long life **$12.99**

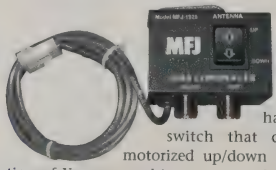
W4RT

ANTENNA BOSS Motorized Antenna Controller Makes essentially any motorized antenna "look like" the Yaesu ATAS-100/120 to the Yaesu FT-100/D, 847, 857, and FT-897 radios, allowing use of the radio's TUNE button for automatic tuning. Works with 6-12VDC motors, no special sensors in the antenna required, no programming or computer required. Works to full legal limit and fine with antennas having a shunt coil. Radio powers both the BOSS and antenna motor **$179.99**

MFJ
MFJ ENTERPRISES, INC.

931 Artificial Ground Unit Eliminates problems caused by inadequate grounding when using random length wire antennas. It resonates an additional length of wire to act as a tuned counterpoise. It results in easier tuning, improved efficiency, a better radiation pattern and reduced TVI/RFI. Covers 1.8 to 30MHz, RF ammeter tuning indicator. 7.5"w x 3.5"h x 7"d. *Not for coax fed antennas* **$89.99**

270 Lightning Surge Protector Safeguard ham gear from damage due to static charges & lightning induced surges. Replaceable ultra-fast gas discharge tube safely shunts up to 5000 amps of peak impulse current to an independent ground. Rated to 400W PEP, usable up to 1000MHz **$29.99**

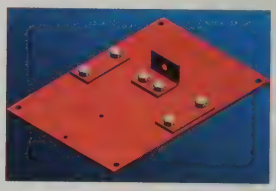


1925 Controller for Yaesu ATAS-Series Antennas A handy in-line switch that controls the motorized up/down tuning function of Yaesu screwdriver antennas by putting the DC control voltage on the center conductor of the coax. Works with most rigs except the Icom IC-706 series, which requires a special control cable. When the up/down switch is pressed, the 706 will transmit 10W CW while monitoring for lowest SWR. When switch is released, the 706 returns to previous mode and power (order model 1925I2) ea. **$59.99**

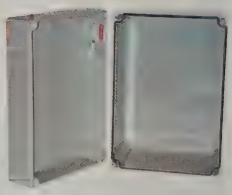
GROUNDING ACCESSORIES

GBIS18114AE 1/8" Copper Entrance Ground Bar Kit Installs at shack entrance, making a short connection to the ground system. Holds up to five PolyPhaser IS-50-type lightning protectors. Insulated stand-off brackets allow attaching and insulating of ground bar from mounting surface. Two HD terminal lugs and hardware included. Attach grounding wires from 1/0 stranded to #6 solid..... **$27.99**

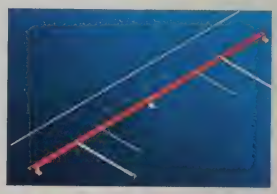
GEL3AE Pkg. of 5 HD terminal lugs **$15.99**



GP1868.78AE 1/8 in. Copper Single Point Ground Panel Kit Provides single-point grounding for two transceiver lines and rotor control cable. Installs at tower base or on outside wall. Sized to fit inside a NEMA-4X style box for weather proofing. Tapped holes and hardware provided for mounting a PolyPhaser IC-RCT rotor control protector and up to two IS-50 series coaxial protectors. Sandwich plates and hardware included **$54.99**



GBX976AE NEMA 4X Waterproof Enclosure *(right)* Accepts GP1868.78AE ground panel **$89.99**



GBIS18148AE 1/8" Copper Station Ground Bar Kit Installs at back of operating desk. Grounds individual components to a common point preventing multiple ground paths and daisy-chains. Accepts a heavy ground conductor to be routed to station ground or entrance ground bar. Includes two heavy 12 in. straps for equipment and two light duty 1/4 in. straps for accessories, plus an extra 1/4" strap and lugs for added assemblies **$64.99**

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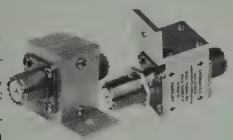
PolyPhaser® CORPORATION

The primary rule for protecting ham radio equipment against lightning damage is connection of all elements to a single, low impedance, ground system within the hamshack. This includes antenna, antenna support (pole, tower, etc.), and all station protectors (antenna, power, telephone, rotor, etc.).

BROADBAND COAXIAL PROTECTORS

Hermetically-sealed gas tubes and additional components assuring surge voltages and currents that are formed diffentially on coaxial cable are prevented from being shared by valuable equipment. DC blocked for maximum protection. • Low loss • Multi-strike capability with low strike throughput energy • Aluminum enclosure • Wide frequency range, low VSWR • Works on all equipment • Silver-center, TFE, UHF connectors • Silver shell and gold pin Type-N



Flange Mount (left)

IS-50UX-C0 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • UHF connector..... **$61.99**

IS-50UX-C1 50–700MHz • VHF 375W, UHF 125W • UHF connector..... **$61.99**

IS-50NX-C2 125–1000MHz • VHF 375W, UHF 125W/50W (low/high) • Type-N conn..... **$61.99**

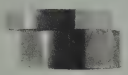
Bulkhead Mount (right)

IS-B50LU-C0 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • UHF connector..... **$64.99**

IS-B50LU-C1 50–700MHz • VHF 375W, UHF 125W • UHF connector..... **$64.99**

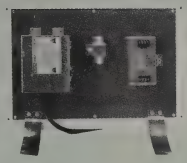
IS-B50LN-C2 125–1000MHz • VHF 375W, UHF 125W/50W (low/high) • Type-N conn..... **$64.99**

LOW INDUCTANCE COPPER STRAP

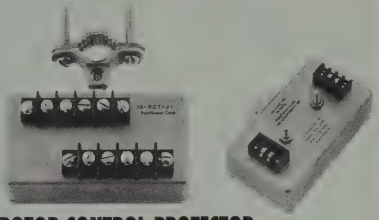


A larger surface area and lower inductance gives strap a huge advantage over wire for RF grounding and lightning protection. Cannot be fused open by lightning. Usable above or in-ground, #26 AWG thickness. Available in 1.5" or 3" widths and 25', 50' or 100' rolls. See Price Guide for details.

GROUNDING PANEL



CU-SPGP A heavy 0.062" copper plate mounted on 1/2" plywood. For mounting protectors and establishing the important single grounding point for all station equipment. Comes with concrete anchors, mounting screws, two rolls of 10' x 1.5" copper grounding strap and 2 copper, 18"w x 12"h, sandwich bars, 16" on-center mount..... **$69.99**

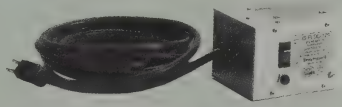


ROTOR CONTROL PROTECTOR

IS-RCT *(left)* 8-wire protection for rotor box and nearby equipment. Water tight with mounting stud. Shown with optional J-1 clamp..... **$54.99**

IN-LINE PHONE LINE PROTECTOR

IS-SPTL *(right)* Multi-stage protection for telephone trunk lines. Handles ring voltages up to 105V, surges up to 36kA..... **$57.99**



POWER LINE EXTENSION PROTECTOR

In-line, multi-stage protectors provide multi-strike line protection, filtering and proper grounding for a 120V AC line. 2 grounded outlets, power switch, and circuit breaker. All aluminum grounded enclosure, 4.75" wide.

PLDO-120US15A 15', 120V/15A..... **$159.99**

PLDO-120US20A 6' cord, 120V/20A.. **$199.99**

GLEN MARTIN ENGINEERING

SP® Certified

FULL BODY CLIMBING HARNESSES

SkyClimber™ *(left)* Chest-high front D-ring for fixed climbing. Made of polyester, easy on/off. Two D-ring harnesses offer sliding D-ring at center of back, and chest-high front D-ring. Four D-ring harnesses have sliding D-ring at center of back, chest-high front D-ring, and D-ring on each hip.

FP-5600 Two D-ring, 2.7 lbs., S-M..... **$89.99**

FP-5601 Two D-ring, 2.8 lbs., L-XL..... **89.99**

FP-5602 Four D-ring, 3.0 lbs., S-M..... **106.99**

FP-5603 Four D-ring, 3.2 lbs., L-XL..... **106.99**

StarClimber™ *(right)* Six D-ring tower saddle harnesses with padded seat and shoulder straps, and removable tool belt. Sliding D-ring at center of back, chest-high front D-ring, D-ring on each hip and each end of seat strap, black 1.75" nylon tongue buckle leg strap, red 1.75" polyester shoulder straps, two accessory rings attached to 5" padded backpad and seatstrap, and carry-all bag.

FP-6600 5.0 lbs., extra small..... **$260.99**

FP-6601 5.1 lbs., small..... **236.99**

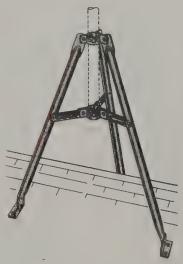
FP-6602 5.2 lbs., medium..... **236.99**

FP-6603 5.3 lbs., large..... **236.99**

FP-6604 5.4 lbs., extra large..... **236.99**

EASY-UP ANTENNA TRIPODS

UPS SHIPPABLE



The use of a self-supporting antenna mount makes a neat and attractive installation without guy wires. EZ-Ups are Heavy-Duty and Self-supporting – made out of 1-1/4 in. tubular steel with triple corrsion protection inside and out. Double embossed collars with six locking screws hold masts up to 1-3/4 in. Fast, one-person installation, the legs extend to any rafter spacing. Shipped completely assembled and includes a pitch pad kit and lag screws.

EZ 48-3ABX *(right)* 3 ft. high, 8.5 lbs..... **$24.99**

EZ 48-5ABX *(right)* 5 ft. high, 12 lbs..... **$34.99**

EZ 5-16 5' 16 ga. steel mast (Pick-up only) **$7.99**

EZ 29-24S Heavy-duty Double-strap Chimney Mount *(left)* Mount includes two "Y" type mounts and 24' of stainless steel strap..... **$17.99**

Lightning Protectors Employ gas-tube protection to isolate equipment from surges. Gas-tube holder unscrews providing simple gas-tube replacement. Both models are weatherproof, may be bulk head mounted, or flange mounted using the included bracket. Machined construction, gold pin teflon female connectors. Rated 1600W. 2.5"l x 1" dia.

SP-U UHF female connectors • DC to 600MHz range • 0.1dB insertion loss..... **$39.99**

SP-N Type-N female connectors • DC to 2.5GHz range • 0.2dB insertion loss..... **$39.99**

AP Replacement gas-tube protector..... **$9.99**

ANTENEX

MOUNTS

MB-8PST Permanent Brass Hole Mount (NMO) Quality brass alloy, silver-soldered ground lug. Mounts in 3/4" hole. Comes with 17' RG-58A/U stranded cable, Teflon® PL-259 connector. **$15.99**

GB-8PSTI NMO Magnetic Mount For temporary vehicle installs. Strong (90 lbs. pull), protective mylar sole prevents scratches. With 12' RG-58A/U cable and Teflon® PL-259 connector..... **$29.99**

LBMB-9034 "L" Bracket for Mirror Mount Strong, extruded aluminum. Accepts various 3/4" hole mounts. Black (plain pictured)..... **$10.99**

VTPM Plate Mount 1" thick NMO plate mount (UHF barrel)..... **$15.99**

CRANK IT UP!

MA SERIES CRANK-UP TUBULAR TOWERS

The premier MA-Series towers are designed to be both safe and neighbor-friendly. The slender design gives a clean flagpole-like appearance while allowing antennas from 15.3 to 22 sq. ft. in 50mph winds, depending on the model.

Model	Height max./min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
MA-40	40'/21'6"	2	242	3"sq./4.5"	3'x3'x4'6"	$1049.99
MA-550*	55'/22'1"	3	435	3"sq./6"	3.5'x3.5'x5'	$1619.99
MA-770*	71'/22'10"	4	645	3"sq./8"	5'x5'x5'6"	$2639.99
MA-850*	85'/23'6"	5	943	3"sq./10"	5'x5'x6'	$4069.99

*Also available as tower/heavy-duty motor drive (positive pull down) package. Requires purchase of MCL-100 limit switch control or RMC-1000 remote control. 770 and 850 require MAB or MARB series base.

FREE STANDING "LOW-PROFILE" CRANK-UP LATTICE TOWERS

The compact TMM Series are desinged to offer an alternative for clients in height restricted areas. These towers have a minimum retracted height of 11'4" to 12' (depending on rotor). Visual impact is reduced and antenna servicing is made easier. The TMM Series are lightweight, freestanding, and allow up to 50 sq. ft. of antenna in 50mph winds.

Model	Height max./min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
TMM-433SS	33'/11'4"	4	315	10"/18"	4'x4'x4'6"	$1379.99
TMM-433HD*	33'/11'4"	4	400	12.5"/21.5"	4'x4'x5'	$1669.99
TMM-541SS*	41'/12'	5	430	10"/21.625"	4'x4'x5'	$1809.99

*Will accept the MDP-750 motor drive, factory installed only.

FREE STANDING CRANK-UP LATTICE TOWERS

The standard duty TX Series are as strong or stronger than most competitors' heavy-duty models. They have 21' sections with 4' overlap to provide extra height, as well as to help prevent binding in high winds. The TX Series comes complete with rotor plate and base hardware and require no guying. All bases will accept the TRX Series raising fixtures.

Model	Height max./min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
TX-438	38'/21'6"	2	355	12.5"/15"	5'x5'x5'	$1299.99
TX-455	55'/21'6"	3	670	12.5"/18"	5'x5'x6'	$1799.99
TX-472*	72'/22'8"	4	1040	12.5"/21.625"	5'x5'x6'6"	$2939.99
TX-489MDPL**	89'/23'4"	5	1800	12.5"/25.625"	5'x5'x8'	$7659.99

*Also available as a tower/heavy-duty motor drive (with positive pull down) package. Requires purchase of MCL-100 limit switch control or RMC-1000 remote control. **Comes with heavy-duty motor drive with dual level wind and positive pull down. Requires purchase of MCL-100 limit switch control or RMC-1000 remote control.

FREE STANDING HEAVY-DUTY CRANK-UP LATTICE TOWERS

The HDX Series heavy-duty telescoping towers have up to 2-1/2 times more wind loading capacity than others (up to 70 sq. ft. at 50mph). This allows for large stacked arrays, while using commercial-type bases and anchor bolts. All T-bases can utilize the TRX Series raising fixtures, allowing the tower to hinge. None of the lattice style towers require guying.

Model	Height max./min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
HDX-538	38'/21'6"	2	600	15"/18"	5'x5'x6'	$1539.99
HDX-555	55'/21'6"	3	870	15"/21.625"	5'x5'x6'6"	$2679.99
HDX-572MDPL*	72'/22'8"	4	1600	15"/25.625"	4'x4'x8'	$7019.99
HDX-589MDPL*	89'/23'4"	5	2440	15"/30.625"	5'x5'x8'	$9189.99
HDX-5106MDPL*	106'/24'8"	6	3805	15"/37.125"	5'x5'x9'	$19299.99

*Includes heavy-duty motor drive with dual level wind and positive pull down. Requires purchase of MCL-100 limit switch control (included with 589MDPL and 5106MDPL) or RMC-1000 remote control.

US TOWER CORPORATION

Headquarters
1220 N Marcin St.
Visalia, CA 93291
(559) 733-2436

Second Location
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Lincoln, KS 67455
(785) 524-9966

US Tower accessories listed in the Price Guide.

All towers are drop shipped directly from the factory. Additional freight charges apply. Ask for details.

UNIVERSAL TOWERS

ALUMINUM, FREESTANDING, SELF-SUPPORTING AT RATED LOAD

Universal offers 10-foot easy-to-assemble sections or complete towers ranging from 30 to 100 feet with a choice of wind load ratings and accessories. The lightweight, rust-free, strong, aluminum sections are equilateral, triangular, welded trusses available in 11, 14, 18, 22, 26 or 30-inch widths. To choose the proper tower: a) Determine the projected surface area of the mountable antenna. This figure is often found in the accompanying antenna literature. If not, use the following standards: standard TV antennas = 2 sq. ft. in area; 6/10 meter beams and large TV antennas = 5 sq. ft.; 20/40 meter beams = 9 sq. ft.; large 20/40 meter beams or multiple antenna arrays = 18–26 sq. ft. [when using a rotator, add 1 sq. ft., plus 1 sq. ft. for the mast, to the antenna size] b) Decide on the desired tower height. [sectional towers provide the option to add height later] c) Choose a model based on height and windload. Model numbers are merely wind load followed by height. [eg. Model 5-50 = 5 sq. ft. wind load + 50' desired height]

hy-gain ROTATORS

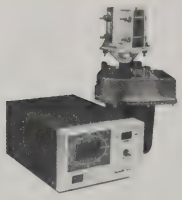
. . . the first choice of hams around the world!

The HAM-IV

is the most popular rotator in the world! It is designed for medium communications arrays of up to 15 sq. ft. wind load area. Low temperature grease permits normal operation down to -30° F. New alloy ring gear gives extra strength up to 100,000 PSI for maximum reliability. The indicator potentiometer leads have ferrite beads to reduce RF susceptibility. For convenience a Cinch® plug connector is used at the rotor plus an 8-pin plug at the control box. Dual 98 ball bearing race for load bearing strength and electric locking steel wedge brake prevents wind induced antenna movement. North or South center meter scale. Maximum mast size: 2.063 in..... **$529.99**

Ham-IV Specifications

Wind Load cap.(inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Dual race/96 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 ft/lbs.**



The HDR-300A

is the best for king-sized antenna arrays up to 25 sq. ft. wind load. Machined steel output gear. Tough, hardened stainless steel output shaft with a long keyway for added reliability. North or South centered calibration, Ferrite beads are installed on the potentiometer wires to reduce RF susceptibility, Heavy-duty self-centering steel mast clamp and hardware. Digital heading display accurate to 1°. Mast size: 1.25"-3" .. **$1229.99**

HDR-300A Specifications

Wind Load capacity	25 square feet
Wind Load (w/mast adapter)	**N/A**
Turning Power (inch lbs.)	5000
Brake Power (inch lbs.)	**7500**
Brake Construction	Solenoid operated locking
Bearing Assembly	**Bronze sleeve w/rollers**
Mounting Hardware	Stainless steel bolts
Control Cable Conductors	**7** (Belden 8448 or 9405)
Shipping Weight (lbs.)	55
Effective Moment (in tower)	**5000 ft/lbs.**

The TAILTWISTER SERIES II

is designed for medium communications antenna arrays of up to 20 sq. ft. wind load area. Available with DCU-1 Pathfinder Digital control box (T-2XD) or standard Analog control box (T-2X). Low temperature grease, alloy ring gear, indicator potentiometer, ferrite beads on potentiometer wires, weatherproof AMP connectors plus 8-pin plug at the control box. Triple bearing race with 138 ball bearings for large load bearing strength, electric locking steel wedge brake, North or South center meter scale, low voltage control. Maximum mast size: 2.063 in. **T-2X** with analog control..... **$619.99**
T-2XD with DCU-1 control **$979.99**

TAILTWISTER Specifications

Wind Load cap.(inside tower)	20 square feet
Wind Load (w/ mast adapter)	**10 square feet**
Turning Power (in lbs.)	1000
Brake Power (in lbs.)	**9000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Triple race/138 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	28
Effective Moment (in tower)	**3400 ft/lbs.**

The AR-40

is for large FM-TV and compact communication antenna arrays up to 3.0 sq. ft. wind load area. The dual 12 ball bearing race is exclusive in its class. Automatic position sensor never needs resetting. Fully automatic control, just dial and touch for any desired location. Solid state, low voltage control. Safe and silent operation. Maximum mast size: 2.063 in. Includes light duty lower mast support.... **$269.99**

AR-40 Specifications

Wind Load cap.(inside tower)	3.0 square feet
Wind Load (w/mast adapter)	**1.5 square feet**
Turning Power (inch lbs.)	350
Brake Power (inch lbs.)	**450**
Brake Construction	Disc Brake
Ball Bearing Assembly	**Dual race/12 bearings**
Mounting Hardware	Plated clamps/steel bolts
Control Cable Conductors	**5** (Belden 8448 or 9405)
Shipping Weight (lbs.)	14
Effective Moment (in tower)	**300 ft/lbs.**

THE HAM-V

Designed for medium communications antenna arrays of up to 15 sq. ft. wind load area. Includes the innovative DCU-1 Pathfinder control unit. A strong 100,000 p.s.i alloy ring gear and a new indicator potentiometer have been added for improved reliability. For convenience, a Cinch® connector is used at the rotor and an 8-pin plug at the control box. Ferrite beads reduce RFI. Powder coated finish. Max. mast size: 2.063 in..... **$899.99**

HAM-V Specifications

Wind Load cap.(inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Dual race/96 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 foot/lbs.**

The CD-45-II

handles 8.5 sq. ft. mounted inside a tower, or 5 sq. ft. with mast adapter. Low temperature grease good to -30°F. Bell rotator design gives total weather protection, dual 58 ball bearing race gives proven support. Die-cast ring gear, stamped steel gear drive, heavy duty, trouble free gear train, North or South center scale, lighted directional indicator, 8-pin plug on control unit, snap-action control switches, low voltage control, safe operation, takes masts up to 2.063". Includes light duty lower mast support..... **$369.99**

CD-45-II Specifications

Wind Load cap.(inside tower)	8.5 square feet
Wind Load (w/mast adapter)	**5.0 square feet**
Turning Power (inch lbs.)	600
Brake Power (inch lbs.)	**800**
Brake Construction	Disc Brake
Ball Bearing Assembly	**Dual race/48 bearings**
Mounting Hardware	plated clamps/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	22
Effective Moment (in tower)	**1200 ft/lbs.**

The DCU-1 PATHFINDER

Digital Rotator Control unit compatible with CD-45-II, HAM-IV, T-2X

Automatic operation of brake and rotor with digital readout out of your beam heading, accurate to 1°, and 360° choice for center of rotation. Automatic 8-second brake engagement delay reduces stopping torque stress. Six presets store favorite headings. RS-232 computer control, compatible with many logging and contest programs .. **$599.99**

Rotator Accessories

MSHD Heavy duty lower mast support for Ham-IV/V, T-2X/XD **$99.99**
MSLD Lower mat support for CD-45-II, AR-40 ..... **$39.99**
TSP-1 Tower spacer plate **$34.99**

We accept I.M.P.A.C.® Government Credit Cards

YAESU

ROTATORS

Precision designed for a wide variety of antenna installations • Strong, weatherproof, die-cast aluminum enclosures • Permanently lubricated for years of smooth, quiet operation • 450° Rotation • Selectable north or south center • Quiet, gear reduction braking • 117/220 VAC • Fits most USA-made tower shelves.

G-2800DXA *(left)* The top-of-the line rotator for extra heavy-duty applications. 450° total rotation, with presets • 34 sq. ft. wind load • K-factor of 6870 ft. lbs. • 1808 ft lbs. of stationary torque • Rotation torque: 57.8-181 ft. lbs., rotation speed and torque vary with the speed control setting • Maximum vertical load of 661 lbs. • ±1/2° backlash • 1.875–2.5" mast size • 48-150 second 360° rotation • Optional GS-232A interface • Includes 131' (40m) of 6-wire cable • 8"dia. x 13.375"h • 13.2 lbs..... **$1139.99**

G-1000DXA *(right)* High-performance for medium and heavy-duty applications. Total rotational range 450°, with presets • 23 sq. ft. wind load • K-factor of 2020 ft. lbs. • 433 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with speed setting • Max. vertical load: 440 lbs. • ±2° backlash • 1.5–2.5" mast • 35-74 sec. 360° rotation • Optional GS-232A interface • Requires 6-wire cable • 7.5"dia. x 12.5"h • 7.7 lbs **$519.99**

G-450A *(left)* For HF/VHF light to medium-duty applications, without presets • 10 sq. ft. wind load • K-factor of 722 ft. lbs. • 217 ft lbs. of stationary torque • Rotation torque: 43 ft. lbs. • Maximum vertical load of 220 lbs. • 1.5-2.5" mast size • 53 second 360° rotation • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7 lbs **$259.99**

G-5500 *(right)* Azimuth-Elevation rotator combo for satellite earth station & other space communication antennas • 11 sq. ft. wind load • 578 ft. lbs. K-factor • 145 ft lbs. stationary torque • Rotation torque: 44 ft. lbs. • 440 lbs. max. vertical load • ±4% backlash • 1.5–2.5" mast • 58 sec. 360° rotation • 67 sec. 180° elevation • Opt. GS-232A interface/C-1000 cable • 1.25–1.625" boom dia. • Requires 2 x 6-wire cable • 12.5"dia. x 7.5"h, 20 lbs **$629.99**

G-550 Elevation rotator, for satellite earth station and other space communication antennas • 12 sq. ft. wind load • K-factor of 578 ft. lbs. • 101 ft lbs. of stationary torque • Rotation torque: 73 ft. lbs. • Maximum vertical load of 440 lbs. • ±3% backlash • 1.5–2.5" mast size • 67 second 180° elevation • 1.25–1.625" boom diameter • Requires 6-wire cable • 10.5"dia. x 7.5"h • 7.3 lbs ... **$299.99**

G-800DXA *(left)* High-performance for medium-duty applications. Total rotational range 450°, with presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • 43-79 ft. lbs. rotation torque, rotation speed/torque vary with the speed control setting • Max. vertical load of 440 lbs. • ±2° backlash • 1.5–2.5" mast • 35-74sec. 360° rotation • Optional GS-232A interface • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs ... **$429.99**

G-800SA *(right)* High performance for medium-duty applications. Total rotational range 450°, no presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • 43-79 ft. lbs. rotation torque, rotation speed/torque vary with the speed control setting • Max. vertical load of 440 lbs. • ±2° backlash • 1.5-2.5" mast size • 44 second 360° rotation • Quick-disconnect plug • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs ... **$339.99**

ACCESSORIES

GC-038 Mast clamp **31.99**
GC-048 Mast clamp for G-2800 ..... **47.99**
GS-050 50mm thrust bearing (1.25"-2") **31.99**
GS-065 65mm thrust bearing (1.5"-2.5") ... **47.99**
GS-232A Interface for DXA rotators **539.99**
C-1000 GS-232A cable for SDX's/5500..... **29.99**
GS-680U Universal, self adjust. bearing **99.99**
SEP KIT Separation kit for G-5500..... **23.99**

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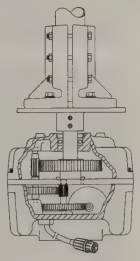

OR-2800PDC **Heavy-duty Rotator** Powerful and reliable, rotates multiple HF antennas or large VHF or UHF arrays with ease. The control box provides manual features plus heading preset, 10 programmable presets, programmable ramped start/stop, 1/2-degree target accuracy. Includes RS-232 port for computer control • Precision worm-gear drive, not reversible by mast torque • Non-slip, ductile iron mast clamps • Large drive plate for masts up to 3" • Heat-treated steel gear train, hardened driveshaft • Prop-pitch style torque plate • Fits inside most popular towers and mates to standard towers and rotator plates • Motor-mounted digital pulse switch for accurate, closed loop control and heading display • 35 sq. ft. wind area • 1800 lbs. vertical load • 1.75–3.125 O.D. mast size • 55-270 second rotation speed • 0.1°/0.5° travel resolution • 110/ 220V AC, 50/60Hz input • 28-42V DC motor • Requires 8-wire (2 4-wire runs) rotor cable • 15.75"h total, 9.75"h rotor • 42 lbs **$1399.99**

Channel Master

9521A **Drive Unit:** Handles small to medium-sized VHF/UHF Ham antennas and TV antennas • One-piece cast aluminum housing • Heavy-duty rotator motor, three wire control • Precision-cut gear system • Built-in steel thrust bearing • Wind-tested brake pad • Durable powder-coated finish **Control Unit:** Direct access via channel number or compass heading • Compatible with most remote controls • Separate infrared remote controller • 69 channel programmable memory • Auto-synchronization for pinpoint accuracy • 3-wire **$99.99**

ECG®

U-105 **Light-duty Antenna Rotator** Long life, precision cut, hardened steel gears in a rugged, one-piece, cast aluminum housing. Large bearing surfaces and a strong, reinforced mast for lateral load support. Ball bearings are provided for vertical thrust load. This rotator's high torque easily handles the largest TV/FM and modest amateur VHF/UHF antenna arrays. Built to take high winds and harsh weather extremes with a water tight, lubricated seal. With completely automatic control, it accurately shows orientation of antenna and offers smooth, quiet operation. **Control Unit:** 120 VAC, 60 Hz, 68W • 18 VAC output voltage • 3-wire • 7"w x 5.875"d x 2.375"h **Rotator Drive Unit:** 360° rotation (mechanical stop) • 70 sec. rotation • Rotation torque of 8 ft.-lbs. • 100 lb. max. vertical load • 1.125" to 2" O.D. support mast • 10 lbs **$69.99**

TB-105 **Support Bearing** Use with the U-105 rotator to provide extra support and adding strength to an antenna installation. Ball bearing design also relieves stress from varying wind loads on the rotator drive and bearing..... **$18.99**

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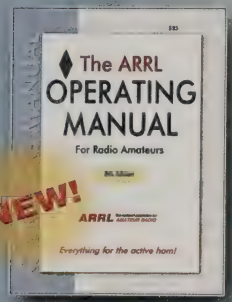

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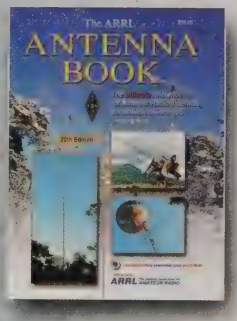

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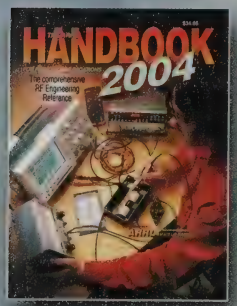

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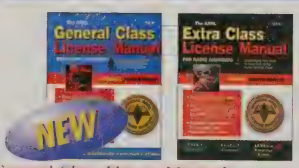

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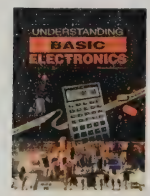

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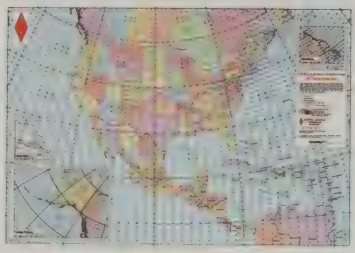

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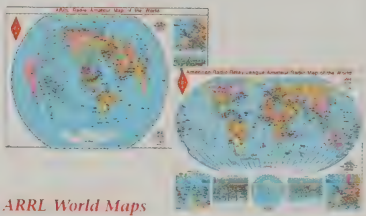

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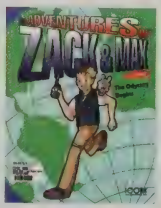

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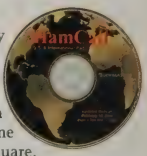

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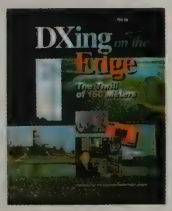

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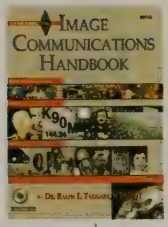

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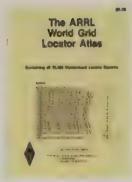

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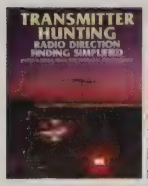

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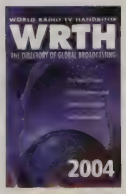

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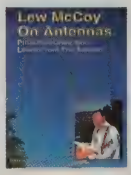

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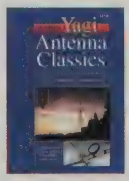

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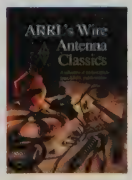

Wire Antenna Classics

Wire antennas ranging from simple to complex. Find one to deliver the performance you want. Dipoles, broadband and multi-band dipoles, loops, collinears, rhombics, wire beams, vertically polarized and receive antennas are all featured, even a chapter on tree-mounted antennas... **ARR 344 $14**

More Wire Antenna Classics

Enjoy even MORE wire antennas! Filled with innovative designs from the pages of QST and other ARRL publications ..... **ARR 208 $14**

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hobbyzone

READY-TO-FLY ELECTRIC AIRPLANES

Everything needed to get flying – plane, transmitter, receiver, rechargeable NiCad battery, battery charger and instructional video – in one package. Almost all models include the following features.

SmartTrak™ Technology Revolutionary flight control system. An on-board time-based computer adjusts control throws based on selected modes, conditions and throttle positions, improving flight handling and performance.

Standard Mode Designed for first time pilots, it gives positive response while preventing the common problem of crashes caused by over-controlling and spiraling.

Expert Mode Allows increased control throw and response, allowing for a more advanced maneuvers like spirals, wingovers, swooping dives and climbs.

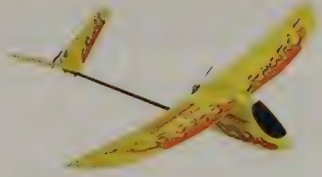
X-Port For exciting optional plug-ins like the Sonic Combat module and Aerial Drop module.

4000 Fighterbird™ (pictured above) An RC combat plane that adds the thrill and excitement of a multi-player video game to the ready-to-fly experience. Using the ingenious sonic combat module (included), up to six Fighterbird pilots can compete to temporarily disable their opponents motors. • 42" wing span • 15 minute average flight time • 380 motor, provides fast climb-out • Two-stick proportional controller with 2,500' range (8 AA batteries included) • Sonic Combat module included • 6-cell, 7.2V, 900mAh NiMH pack with field charger • 16.3 oz. (with battery) **$119.99**

2500 Firebird Commander Using standard mode makes learning to fly easier than ever. Once you've earned your wings, it easily converts via onboard programmable computer to expert mode, offering increased control response for exciting maneuvers like wingovers, dives and pylon turns • 380 motor for faster climbs and higher speeds • SmartTrak™ control system • Two-stick proportional controller with 2,500' range (8 AA batteries included) • X-Port for optional modules • 40.25" wing span • 18 minute average flight time • 6-cell, 7.2V, 900mAh NiMH with AC wall charger with timer and LED • 31"l, 17 oz. (with battery) **$109.99**

Used & Demo
Equipment lists

Updated regularly on the web.
Check them out and order **On-line**

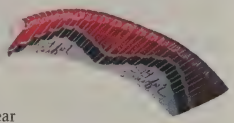


1500 Firebird II The easiest flying R/C plane ever! Ready to fly in minutes! No experience necessary. It "steers" around the sky using two simple controls: steering and proportional throttle. The throttle provides for climb, cruise, or decent. Steering means you literally "steer" the airplane left and right through the sky like an R/C car. Includes a spare wing. • Duration 200 motor • FlightTrak™, provides goof-proof control • Two-stick proportional controller with a 2,500' range (requires 8 AA batteries, not included) • 15-18 minute average flight time • 4-cell, 7.2V, 600mAh NiMH pack with A/C wall charger with timer and LED • 23"l, 31.5" wing span, 8 oz..... **$79.99**

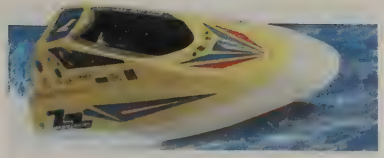
5500 Firebird IIST New, replacing above **$84.99**

3500 Aerobird Challenger Created to give the experienced RC pilot a ready-to-fly experience unlike any other. Its powerful motor, proportional 3-channel control system and highly effective control surfaces will have you flying circles around most ready-to-fly models. Loops, turns, stall turns, whip stalls, etc. – it can do it all. Sport mode keeps control responses smooth and manageable. Once you've mastered the basics, unlock Pro mode and enjoy maximum maneuverability for aerial combat or aerobatics. • Powerful 380 motor for outstanding climb and aerobatic performance • FightTrak™ with added pitch function • Advanced, fully-proportional 3-channel single-stick controller with side throttle and 2,500' range (8 AA alkalines included) • X-Port for optional modules • 6-cell, 7.2V, 900mAh NiMH with peak detection charger (recharges in 40 minutes) • 15 minute average flight time • 31"l, 42" wing span, 17 oz. (with battery)..... **$149.99**

7800 Sky Surfer



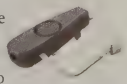
Not just a paraplane – it has zippy climb performance and handling! The motor gear drive and composite propeller make a potent combination that provides enough "oomph" to allow rolling takeoffs. Cruise speeds are in the very manageable 7-10 mph range, thanks to the excess power that lets you throttle back to half power for maintaining level flight. Running time is 3-4 minutes with the included 7.2V 600mAh battery or 7-8 minutes with the optional 7.2V 1100mah battery. The sophisticated steering system allows positive and precise control during all maneuvers. Included are a 2-channel, 27MHz, AM proportional TX; a snap-together gondola; 50" x 18" parafoil with preattached shroud lines; running hardware and 30-minute DC charger. Requires 6 AA's for transmitter. 19 oz..... **$249.99**



RC ELECTRIC BOAT

3305 Zig Zag Racer Remote Control Electric Boat Super fast, highly maneuverable, the ultimate in pool-sized fun. Comes completely assembled and ready for action. Just pop 8 AA's in the transmitter, apply colorful stickers to the body, and you're ready to go. Includes a 2-stick, 2-channel, 27 MHz transmitter; fully proportional electronic speed control; reliable electric motor; 8 AA's and 900mA rechargeable battery; wall charger; 3 anchoring buoys and bolt-on bumper for retrieving buoys and playing water soccer. 15"l x 5.75"w, 16 oz **$79.99**

RC PLANE/BOAT ACCESSORIES



4020 Sonic Combat Module Option for Firebird Commander and Aerobird Challenger. Clips on bottom of craft and connects to receiver circuitry. When pulling back on throttle, it fires a focused, high-frequency sound blast (effective to 50'), temporarily disabling a motor for 10 seconds while allowing full steering. Also serves as detector for "hits" from other aircraft **$23.99**

6023 Air Drop Module Option for Fighterbird, Firebird Commander and Aerobird Challenger. Allows for dropping of streamer bomb or parachute. Includes 2 streamer bombs and one parachute **$19.99**

4025F StealthTarget The perfect accessory to go with any SCM-equipped HobbyZone airplane. Hone your combat techniques without an opponent. Does not fly but mounts stationary on a 24" support pushed into the ground in an open area. Emits a tone when it detects a sonic "hit". 13"l x 8"w, 4.8 oz. Includes 9V battery..... **$19.99**

1011 Speed Battery for Firebird II..... **$17.99**

1012 Replacement 7.2v 900mAh NiMH battery for Fighterbird, Zig Zag Racer and Aerobird **$24.99**

1013 High performance, 8.4V 900mAh NiMH battery for Aerobird and Fighterbird..... **$29.99**

7809 High-performance 7.2V 1100mah battery pack for Sky Surfer. Doubles flight time to approximately 8 minutes..... **$29.99**

1026 DC Peak Charger For all batteries. Features peak detection circuitry and adjustable current so charge rate can be customized. A red LED indicator shows charge cycle status. Unit plugs into any automobile outlet – perfect for use in the field. It will also work as a replacement for 1022..... **$19.99**

2015 7.2V 3-hour wall charger **$8.99**

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RADIO-CONTROLLED ELECTRIC MODELS

2410 "Bandit" **Electric Sports Buggy** Ready-to-run with ProGraphix body, TQ radio system and pistol-grip rotary mechanical controller. No delicate parts or tricky adjustments to worry about. Go ahead, put yourself behind the wheel and experience the speed and thrill of an Extreme Sports Buggy. • Powerful, Stinger, 20-turn, modified motor • Tough 272-Magnum™ variable ratio transmission with slipper clutch, planetary-gear differential and ball bearings throughout • Adjustable, easy-to-change gear ratios • Fiber-composite chassis • High-volume, oil-filled UltraShocks™ • Fully independent, long travel, suspension • Telescoping, U-joint driveshafts • Fiber-composite suspension arms • Bell crank steering virtually eliminates bump steer • Requires 8 AA alkalines, 7.2V NiCad rechargeable battery pack and charger (not included) • 16.25"l x 7"h, 48 oz **$129.99**

3606 "Stampede" **Electric Monster Truck** The chassis is pure monster, with its reinforced channel design, fiber-composite materials, and unsurpassed ground clearance. The suspension is pure race, with track-tuned geometry and the fully-adjustable oil-filled shocks of a competition-level race truck. Fully assembled, ready-to-run. Includes TQ™ radio system and forward/reverse XL-1 electronic speed control. • High-torque, Stinger, 20-turn, motor • Tough, 272 Magnum™ variable ratio transmission with slipper clutch, planetary-gear differential and ball bearings throughout • Adjustable, easy-to-change gear ratios • Fiber-composite chassis and suspension arms • High-volume, oil-filled UltraShocks™ • Fully independent, long travel suspension • Telescoping, U-joint driveshafts • ProGraphix™ body, chrome wheels • 23+ mph top speed • Requires 8 AA alkalines, a 7.2V NiCad battery pack and charger (not included) • 16.25"L x 9.5"h, 68.2 oz **$174.99**

ROBINSON RACING PRODUCTS

1422 Absolute pinion 22T. 48p hardened gear for RC-2141. Needed for Losi XXX-4 kit..... **$4.99**

3710 "Rustler" **Electric 1/10-Scale 2WD Stadium Race Truck** Delivers pro-level racing technology and performance in a reliable, easy to maintain package. Designed for performance and durability, expect hours of low-cost, fast, radio-controlled fun. Fully assembled, ready-to-run, with TQ™ radio system with rotary mechanical speed control, ProGraphix™ painted body and chrom wheels. • High-torque, Stinger™, 20-turn, modified motor • Tough 272 Magnum™ transmission with slipper clutch, planetary-gear differential, ball bearings • Adjustable, easy-to-change gear ratios • Fiber-composite chassis and suspension arms • Low-maintenance, planetary-gear differential • High-volume, oil-filled UltraShocks™• Fully independent, long travel suspension • Telescoping, U-joint driveshafts • Bell crank steering virtually eliminates bump steer • Requires 8 AA alkalines, a 7.2V NiCad rechargable battery pack and charger (not included) • 17.5"l x 7"h, 54.8 oz **$134.99**

3706 "Rustler" Same as **3710** above, but includes the powerful XL-1 electronic speed control with full, digital proportional forward/reverse throttle control **$154.99**

3906 "E-Maxx" **Dual-Motor, 4WD Electric Monster Truck** For gut-wrenching, wheelie-popping monster torque, nothing comes close. Twin Titan™ 550, fan-cooled motors, trick ESC power system, and shift-on-the-fly 2-speed transmission. Ready-to-run with a 3-channel TQ-3 radio system and a painted ProGraphix™ body. Features a new, extra tough, molded composite semi-tub chassis with battery cutouts that lower the C.G. Accepts both stick packs and side-by-side race packs. • Adjustable slipper clutch system • 4-wheel, independent suspension with 4" of ground clearance and over 3.5" of plush, oil-dampened suspension travel with 8 oil-filled shocks • Microprocessor based 16.8V EVX electronic speed control affords precise control over forward and reverse speed • 30+ mph top speed • Requires 8 AA alkaline and (2) 7.2V NiCad batteries with charger (not included) • 19.125"l x 10.5"h, 155.2 oz **$334.99**

More information on Traxxas products available at www.traxxas.com

RADIO-CONTROLLED ELECTRIC MODELS

A0090 "XXX-T" **2WD, Sport, 1/10 Scale, Ready-to-Run Electric Truck** Features ball bearings throughout, a powerful open endbell 19-turn motor (with replaceable brushes), and is topped off with an attractive painted body with hot graphics. Industry leading JR computer-based multi model radio system with new hi-torque servos and a GM electronic speed control that offer quality and features not found on any similar model. • V3R electronic speed control with reverse • Exclusive XXX-T suspension package with hard-anodized oil filled shocks • Rigid molded chassis with dropped center • Molded suspension components feature interlocking construction • Universal driveshafts delivering crisp acceleration and improved traction • Adjustable slipper clutch • Racing transmission with HD adjustable ball differential • Racing tires preglued on one-piece wheels **$269.99**

A0014 "XXX-4" **4WD, Competition, 1/10-Scale Electric Buggy Kit** A no-compromise 4-WD racer. Designed to give the remarkable performance of a 4WD, while being as easy to maintain as a 2WD. Phenomenal performance from a sealed, single-belt drive that reduces friction for outstanding acceleration. • Interlocking construction for ease of building and adjustment (all but eliminates chassis tweak due to impacts) • Ingenious slipper clutch absorbs drive train shock while maintaining crisp acceleration and improved handling • Sealed ball bearings throughout for reduced friction, higher speeds and longer run times • Attractive aerodynamic body/wing • Hard-coated shock absorbers • Easy access differentials • Requires motor, pinion gear, radio speed control and battery..... **$269.99**

TRINITY

RC-2141 **Monster Horsepower Pro Stock Motor** This version of the Monster Horsepower stock motor has been tweaked for the ultimate in performance. The commutator is trued, magnets zapped, new brushes and springs and dyno tested. • RPM: 21,227 @ 5V • Power: 64W @ 10.1k • Efficiency: 49.0% @ 14.6k • 99.7 Nmm torque • Meets all ROAR and NORRCA specs **$39.99**

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Metal Body R/C Model Kits It's fun to build models. It's even more fun to race the model you have built. There's no need to solder wires, paint the body, or glue pieces together. Just assemble the pre-painted models with a screwdriver, add 2 AA batteries for the cars and one 9V battery for the pistol grip transmitter/controllers and you're ready to go. The 1/32 size makes racing in the living room easy and their die-cast bodies are tough.

800001 1/32 Mini Cooper *(left)* 4.375"l x 2"w x 1.75"h, 8 oz..... **$29.99**

800002 1/32 Audi TT Coupe *(right)* 4.875"l x 2"w x 1.5"h, 6.4 oz..... **$29.99**

ELECTRIC CAR ACCESSORIES

4010 Mega1™ AC/DC Quick Charger Charges 4 to 7-cell NiCad batteries • 1200-1400mAh batteries charge in 15 minutes • 15-minute timer • Automatic trickle charge • Voltmeter outlets for monitoring voltage • Operates from 110V AC or 12V DC • Includes 5.5' AC power cord, 2.5' DC cord with alligator clips and 8" charging connection with 2-pin plug • 6.5"w x 4.25"h x 2.25"d, 2.6 lbs **$29.99**

4046 Vision Peak Plus™ Charger Charges 6/7-cell NiCad and NiMH car and receiver packs • Selectable 1 or 4A rate and automatic trickle charge • AC/DC peak detection automatically stops fast charging • 30-second "boost charge" feature gives one-minute boost after battery has been on trickle charge for extended period • Audible "beep" when power is turned on, battery peaks, or error occurs • LCD indicates peak charge time, current, voltage and peak voltage • Operates from 110V AC or 12V DC • Includes 5.5' AC power cord, 3.5' DC cord with large alligator clips and a 12" 2-pin-plug charging connection with 3 connection choices • 7"w x 4.75"h x 2.75"d, 3.6 lbs..... **$69.99**

1000 Dyna-Sport™ 1500mAh high-performance, 6-cell, flat NiCad battery pack for electric cars • Welded tab construction • High-quality superflex silicone wire • Panasonic cells • Needed for Losi XXX-4 kit..... **$16.99**

1145 Dyna-Fun 2000 2000mAH high-performance, 6-cell, flat NiCad battery pack for electric cars..... **$39.99**

QUEST

FLYING MODEL ROCKET KITS

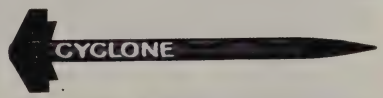
These kits require some assembly. White glue, plastic cement, finishing supplies, launch system and rocket motors are not included. They use solid-fuel rocket motors that are safe, non-reusable devices. A new motor is needed for each flight.

1004 Astra 1 Recommended for beginner modelers • Flies up to 1000 feet • 14" diameter parachute recovery system • Motors: A6-4 (first flight), B6-4, C6-5 • 13" long • Diameter: .984" • 0.81 oz. **$7.49**

1014 Big Betty Recommended for beginner modelers • Flies up to 800 feet • 14" diameter parachute recovery system • Motors: B6-4 (first flight), C6-3, C6-5 • 23" long • Diameter: 1.576" • 3.5 oz. **$9.99**

1604 QE-Z Payloader Recommended for beginner modelers. A quick kit – ready to launch in 15 to 45 minutes. Features a forward body tube area that can be utilized as a payload section. Display stand included. • Flies up to 1200' • Dual 14" parachute recovery system • Motors: B6-4 (first flight), C6-3, C6-5 • 21.5" long • Diameter: 1.18" • 2.3 oz... **$11.99**

2001 "Evader" Cruise Missile Recommended for the experienced modeler. Modeled after tomorrow's leading-edge cruise missile designs. Features plastic nose cone, die-cut balsa fins and impressive decals for a dramatic appearance. • Flies up to 1200 feet • Parachute recovery system • Motors: A6-4 (first flight), B6-4, C6-5 • 16.38" long • Diameter: 0.984" • 1.0 oz **$7.99**



PRE-ASSEMBLED MODEL ROCKET KIT

5721 Cyclone Pre-assembled, ready-to-fly, launch in minutes! • Flies up to 1000 feet • Parachute recovery system • Motors: A6-4, B6-4, C6-5 • 16" long • Diameter: .984" • 3.5 oz..... **$9.99**

ROCKET MOTORS & ACCESSORIES

Single-Stage Motor Flightpack (three per pack) Quick and easy to use. Quality and safety built-in, every launch is an instant success. Motor model description (i.e. A6-4):

A - Total power or impulse produced by motor. Each succeeding letter has double the previous; for example, a "B" type has twice the power of an "A" type motor.

6 - Average thrust or how fast the motor enables your rocket to travel. The higher the number, the greater the speed.

4 - Time delay in seconds from the end of thrust to the parachute ejection charge

5740 A6-4 0.56 lb.-sec. impulse • 4 second time delay • 2.5 oz. maximum lift weight • 0.12 oz. propellant weight..... **$6.29**

5741 B6-4 1.2 lb.-sec. impulse • 4 second time delay • 4 oz. maximum lift weight • 0.23 oz. propellant weight..... **$6.79**

5743 C6-3 2.25 lb.-sec. impulse • 3 second time delay • 2.5 oz. maximum lift weight • 0.44 oz. propellant weight..... **$7.49**

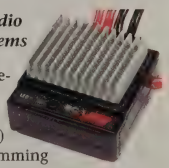
5744 C6-5 2.25 lb.-sec. impulse • 5 second time delay • 4 oz. maximum lift weight • 0.44 oz. propellant weight..... **$7.49**

7021 Model Rocket Recovery Wadding Enough for over 30 flights. Flame retardant and biodegradable..... (100 sheet value pack) **$2.99**

7010 Tigertail II Igniters Shown attached to rocket motor, above..... (pack of 6) **$2.99**

7700 Complete Launch System Includes launch controller and lift-off launch pad. Controller features blinking arming light and alarm, deluxe safety key, and "Sure Grip" design. Requires one 9-Volt alkaline battery (not included). Pad features 36" two-piece launch rod, blast deflector, tilt adjustment, rod safety cap and wind streamer.... **$18.99**

JR *Precision Radio Control Systems*



SP-100 C-1 Forward/Reverse Electronic Speed Control Has all the features: 15-turn motor (or greater) limit, EZ one-touch programming for quick setup and adjustment, high frequency operation for smooth and efficient operation and thermal overload protection. • 7.2–8.4V • 160A/640 A output • 1.45" x 1.71" x 0.89", 1.92 oz... **$64.99**

317275 XS3 75MHz Computer Racing System Uses synthesized signal processing – allows racers to use whatever frequency the track requires. Features include multipoint throttle curves, dual-rate steering, 6-model memory, exponential and other tuning options. Separate button for reversible transmission models. Also includes one Z590M metal gear torque race servo, one Z270 standard race servo, RS300 synthesized 3-channel FM receiver, battery holder and hardware..... **$239.99**

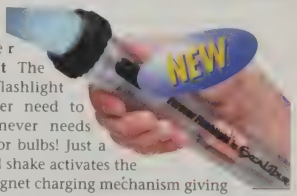
INNOVATIVE ROBOT KITS

Age 8 and up. Fun and educational! By assembling the kits, children and young adults learn some fundamentals of robotics and electronics. Assembly requires cutting and long-nose pliers, small hammer and screwdriver, and one 9V and 2 AA batteries.

MR-1001 SoundTracker A lively robot with audio sound sensor that causes it to react and alter direction of movement. 5"l x 3.75"h x 5.5"w **$29.99**

MR-1002 Antoid Has six legs that make him quite maneuverable. Uses infrared light source and sensor to alter direction. 6"l x 6"h x 7"w..... **$49.99**

908 Talking Electronic Chess Computer Go up against this chess pro for a challenging game! • Magnetic board and chess pieces – pieces store conveniently in compartment under board • Expert strength – estimated 2000 rating • Speaks to player in english, french and german • Includes special teaching and coaching features • 136 selectable levels from beginner to expert • Easy-to-read LCD shows how much time each player has on dual clocks, every move for both player and computer, move counter, automatic scoring, and info mode (what computer is "thinking") • Auto shut-off with memory save, selectable opening lines for play and learning, and lots more • Operates on 3 AA batteries • 12"w x 1"h x 9.98"d, 1.75 lbs..... **$49.99**



H-422 Forever Flashlight The last flashlight you'll ever need to buy! It never needs batteries or bulbs! Just a 30-second shake activates the electromagnet charging mechanism giving you up to five minutes of continuous bright light. Clear case shows mechanism. • Super bright LED • Waterproof – floats in water • Visable for up to one mile • Great for cars, boats, campers and emergency kits • 10.5" long x 1.5" dia, 12 oz **$24.99**

H-423 Micro Forever Flashlight Same features and operations as the H-422, but smaller. • 7.375" long x 1" diameter, 5.6 oz..... **$19.99**

BOUNTY HUNTER METAL DETECTORS

METAL DETECTORS

LAND STAR boasts more features than other costly detectors. Includes a Bounty D-Tech™ open-face search coil, advanced microprocessor electronics, 3-tone discrimination and Ground Trac® retune. A multi-function LCD and touchpad control make it equally at home relic hunting, coin shooting, or gold prospecting. Set the notch to reject items, or let "Auto Notch" detect coins 12" deep..... **$349.99**

FAST TRACKER Newcomers to treasure hunting should not be shortchanged when it comes to features – or quality. That's why there's the Fast Tracker™. It offers 7" Bounty D-Tech™ search coil (adjustable angle), dual-tone audio discrimination, motion all-metals mode, auto ground balance, low-battery alert, built-in speaker, headphone jack, and lightweight S-rod comfort-grip handle with stand..... **$99.99**

SHARP SHOOT II Treasures missed by generations won't escape the Sharp Shooter II™. Digital LCD, touchpad control, and interchangeable Bounty D-Tech™ search coil. Also features 3-tone audio discrimination, selectable auto/manual notch level, auto ground balance, battery indicator, S-rod comfort-grip handle with stand, headphone jack, and built-in speaker **$299.99**

TRACKER IV The optimum combination of power, ease-of-use, affordability, and big finds – every time: the Tracker IV™. Built with a fully-submersible 8" Bounty D-Tech™ search coil, sensitivity meter, built-in speaker, headphone jack and battery indicator. Tracker IV features 3 different user-adjustable operating modes: Motion All-Metals Mode, Full Discrimination, and Tone Discrimination **$129.99**

LAND RANGER Offers high-end features for the serious detectorist. Designed for every metal detecting application at a pro level. Touchpads keep all modes at quick and easy access while the LCD emits a constant reference source maximizing every possibility for finding treasure. It features an 8" waterproof, interchangeable search coil and SmartTrac® ground control..... **$449.99**

QUICK DRAW II The Bounty Hunter Quick Draw II™ metal detector packs powerful features, like an advanced Zilog Z-86 circuit, for superior discrimination and control. Also includes waterproof Bounty D-Tech™ search coil, 3 levels of iron discrimination, both target ID and depth readout, sensitivity control, full discrimination, auto and variable notch, and low battery indicator. Detects up to 10" deep – larger objects up to 5' **$229.99**

TIME RANGER Recover more relics and valuables from the past then ever before. The Time Ranger's powerful circuitry and smooth operation combine to deliver absolute performance. The innovative Sniff-Mode can be used in specialized applications when rejection/acceptance of a particular object is desired **$549.99**

BOUNTY HUNTER ACCESSORIES

CARRY BAG Padded Carrying Case Protects metal detectors from the elements, in storage and transit. Rugged, double-stitched, nylon construction. Includes outside zip-pocket **$29.99**

10" COIL 10-inch Magnum Coil Adds extra depth for relic and cache hunting **$49.99**

Modern flashlights using LED technology. Lights an area like no other flashlight! 25-day batteries (with diminishing brightness) • 11-year (typical), solid-state LED's • Bright, diffused white light • Waterproof to 2' • Shock-proof, high impact composite case with lanyard and hook • 3 year warranty, including LEDs

LW-2000 *(left)* 3 AA alkaline batteries (included) power 4 LEDs. 7.75" long, 1.25" diameter **$29.99**

LW-4000 *(right and end view above)* 3 D alkalines power 10 LEDs. 10.75" long, 2" diameter... **$59.99**

LW-3000 Similar to LW4000, but smaller. 3 C alkalines power 7 LEDs 8.75" long, 1.625" dia... **$49.99**

LW-HT Illuminator™ Head Torch 1"-wide adjustable strapping secures light to the head. Up/down adjustable. 4 high-intensity LEDs powered by 3 AA batteries (not included) provide super-bright light visible for over one mile, over 330 hours **$39.99**

LW-PB PocketBright™ Flashlight Includes key ring, neck lanyard and velcro patches. Single, high-intensity LED, powered by 2 included Lithium batteries, provides over 50 hours of light that can be seen across a full-sized room **$19.99**

COMMUNICATIONS OUTFITTERS

EXP-1 Expedition Pack Designed for the Yaesu FT-817. Allows backpack style or table top operation with complete access to all controls, front and rear. Zippered pouch on both sides securely holds most any antenna in the collapsed position for travel. Radio compartment is divided so the top section will hold the FT-817, and the lower compartment can be used for an amplifier, tuner or other radios. Made of high quality, durable nylon with plastic panels for rigidity. Water-resistant. 12"w x 4"h x 15"d..... **$99.99**

We accept I.M.P.A.C.® Government Credit Cards

RT3-4653 Locking GearKeeper™ Two-Way Radio Tether Prevents loss or damage from device being dropped. Easy connect and disconnect. Retractable 32" tether with 24-ounce return force. Full 360° rotating belt clip..... **$29.99**

RT2-4012 Mic Keeper™ Tired of fumbling with your microphone? Why not grab it, use it, let it go? Retractable 20" tether with 12-ounce return force and snap clip, attaches to D-ring or belt loop. The ultimate way to keep track of your mic..... **$19.99**

Palomar Engineers

VLF CONVERTERS

Receives and converts 10kHz-500kHz (VLF) to tune the 4MHz range. 2 models tune this low range on either a general coverage receiver or Ham band transceiver. Uses 9V battery. 2"h x 4.25"w x 5"d.

VLF-A Use with Ham band transceiver.... **$99.99**
VLF-S Use with general coverage receiver. **$99.99**

MFJ ENTERPRISES, INC.

CARRYING CASES

18 HamGear™ Tactical Chest Harness *(left)* Perfect for rugged use, emergency radio operators and on-the-go hams! Use it for portable hamfest use, DXpeditions, field day, biking, hiking, etc. Made of durable heavy duty twill burlap, this interwoven fabric is water resistant and will cushion blows and scrapes. Adjustable shoulder straps. Harness is firmly held in place by stretchable inter-woven elastic belt with snap hook and adjustable sliders supported by nylon straps. A 5 x 7 inch cargo pocket holds another radio, maps, etc..... **$29.99**

15 HamGear™ Belt Radio Holder *(right)* Durable twill burlap pocket with elastic cord and velcro closure easily stretches over any HT. Belt slides easily through 2 x 3 inch loop..... **$14.99**

VECTRONICS

Electronic Kits Each features a quality epoxy glass PC board with solder mask and screen-printed component key, manual and components. Choose from 40M receiver; crystal radio; 40M CW, AM radio and TV transmitters; 2M preamp; CW keyer; battery conditioner; FM broadcast SCA decoder; SSB audio filter; and tunable SSB/CW audio filter..... **See Price Guide**

SUPERIOR ACCESSORIES

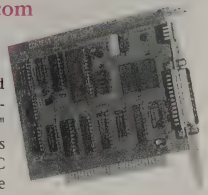
HOU CPM-310 6" pedestal for convenient mounting of small mobile radios. Bolts securely to vehicle floor board or any convenient area. Adjustable to multiple viewing angles..... **$14.99**

Look For This NEW & Check Out AES' Latest Additions.

UM Unified Microsystems

ums@nconnect.com

CONTEST CARD



W9XT Contest Card for IBM™ & PC Compatible A non-volatile 5" x 4.5" card that plugs into a single 8-bit PC slot and provides voice recording, playback and CW keying. Stores a total 60 seconds of voice audio divided into four 15 second messages. Samples at 8 kHz for high quality and natural sound. Does not use any disk space. For CW, the card frees up the PC port, and a relay allows operation with positive or negative keying. Works with all rigs and is compatible with most popular logging programs..... **$139.99**

CCC-8 Contest Card Cable Semi-kit Wired and tested except for connectors to mic and transmitter. Includes 6 ft. shielded cable, CW keying line and record switch (8-pin) **$44.99**

AOR®

TDF-370 Multi-Media Terminal with DSP Listen to amazingly clear audio, transmit and receive PSK31 and RTTY, apply potent filtering and hear "weak ones" others may miss. Digital modes wthout a PC! • Use powerful DSP noise reduction and filtering, including Fast Fourier Transform. Auto-notch function • Enhance audio reception of SSB and CW • Monitor SSB and CW in derived "stereo" • Decode and display PSK31 or RTTY, on the LCD • Enhance transmitted audio with 8 channels of mic equalization • Digital voice recorder • 2 selectable front panel inputs • Six outputs: phone, stereo headphones (included) internal or external speaker, mic, PTT and COM • Requires 4 AAs, NiCads or NiMHs or regulated external 9-15 VDC • 3.3"h x 4.3"w x 6.2"d, 12.3 oz..... **$299.99**

ARD-9800 Digital Voice & Image Interface Use conventional analog voice transceiver for digital voice communications, data and images while maintaining analog capabilities. No modifications, simply connect between mic and jack. Operates with transceiver in SSB mode. Automatic voice signal detector recognizes received signal as analog or digital, automatically switching to appropriate mode. Uses Open Digital Protocol, use is permitted on US amateur bands. Send and receive SSTV images in digital mode. Built-in video output connector allows external TV monitor viewing. Operate high speed data on HF band at 3600bps. Operates on 10-16VDC @ 200mA. 3.94"w x 1.26"h x 6.14"d..... **$549.99**

HEAR IT **Noise Eliminating Speaker** Incorporates new DSP technology. Fully adaptive to any change in background or man-made noise levels and effectively attenuates it up to –20dB. This dramatic drop in noise level results in clearer and less fatiguing audio that jumps out of the speaker.

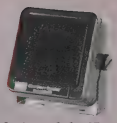
The *'Hear it'* has the capability to reduce noise equal to, or better than, DSP systems built into several popular radios. If the radio already has DSP, the *'Hear it'* will provide an additional benefit. If it doesn't have DSP, the *'Hear it'* will make a remarkable improvement in signal readability.

Offers 8 user-selectable noise cancelling levels, or cancelling can be switched off entirely. Plugging headphones or another speaker into the audio bypass jack mutes the speaker, but retains DSP noise reduction. • 2.5W of audio power • Requires 12–28VDC @ 500mA • 6.5' lead with 3.5mm mono plug • 4.5"w x 2.75"h x 2.25"d **$159.99**

IN LINE MODULE **Hear It In-Line Module** Same audio enhancing features as the Hear It Speaker above. • 20dB average noise attenuation • 8 user-selectable noise attenuation levels • Input sensitivity control knob • 5W RMS audio input power • 2.5 W RMS, 8Ω audio output power • 3.5mm mono and RCA phono audio in/out jacks • Headphone jack • 12-24VDC, 500mA required • 3.5mm to 3.5mm audio and fused power leads supplied • 6.75"w x 3.325"h x 1.375"d, 1 lb **$199.99**

MFJ ENTERPRISES, INC.

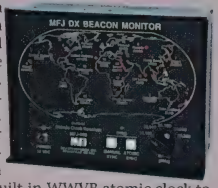
SPEAKERS



281 **ClearTone™ Communications Speaker** Features a 3" *Mylar* cone speaker mounted in a well-designed baffle. Improves speech intelligibility in the 600-4000Hz range while reducing undesirable noise, static & hum. 3.75" x 3"x 2.25"..... **$12.99**

382 **Deluxe *ClearTone*™ 1W Amplified Speaker** Excellent for QRPers, base station HTs or rigs requiring more volume. A quality 3" speaker provides powerful audio – barely audible to high. All metal cabinet, rubber feet and vinyl clad cover. Uses 9V battery (not included) or 110V AC with optional adapter. Connecting cable included. 3.5"h x 1.75"w x 4.5"d..... **$39.99**

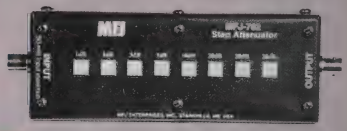
OTHER ACCESSORIES



890 **DX Beacon Monitor** Use as an aid to check band conditions worldwide in just three minutes. It requires no connection to a transceiver. The beacon monitor is a stand alone timing device using a microprocessor and built-in WWVB atomic clock to keep track of the beacon activation sequence. LED indicators positioned across a world map show which of the 18 beacons is active at any given time. Storing the beacon frequencies in transceiver memory allows quick switching as one listens for beacon transmissions. When a beacon is heard on any of the frequencies, that band is open to the location indicated by the corresponding LED. • Requires 12VDC or 110VAC with the optional MFJ-1312D • 6.75"w x 5.25"h x 3"d **$99.99**

616 **Speech Intelligibility Enhancer™** Provides approximately 20dB audio frequency boost or cut to four overlapping octave ranges centered at 300, 600, 1200 and 2400Hz. Improves ability to hear and understand SSB, FM, AM, CW QSOs by adjusting response levels to match hearing response for best clarity, then equalizing perceived loudness to each ear. Built-in dual, 2.5W, audio amps; front panel jack; speaker on/off switch; 2 selectable transceiver in-puts; bypass switch. Use with rig or PA system. 10"w x 2.5"h x 6"d, requires 12 VDC..... **$159.99**

624D **Deluxe Hybrid Phone Patch** Interfaces a phone line with a rig for running phone patches. Jumper selectable for all Kenwood, Icom, Yaesu and Alinco transceivers using an 8-pin microphone connector. Adapts to work with virtually any rig. Uses 12VDC, 9V battery or 110VAC with optional AC adapter. 8"x 2"h x 6"..... **$119.99**



762 **Step Attenuator** Provides push-button selection of up to 81dB attenuation in 1dB steps • Excellent performance up to 170 MHz, usable to 500 MHz • 50Ω, 250 mW maximum input • BNC connectors with BNC-to-SO-239 adapters included • All metal cabinet, 6.5"w x 2.5"h x 1.5"d . **$69.99**

AES

PCL-1 **Pro Communications Loud-Speaker** Ideal for amateur radios, scanners, shortwave, PCs, paging, or surround sound. • Uses European-built, 4" throw, 8Ω, 20W-rated contoured driver • Frequency response is 300Hz-5000Hz, ±3dB, optimized for max. speech intelligibility • Full magnetic shielding permits operation next to PCs, monitors or any other sensitive electronic equipment • Rugged, water resistant enclosure allows indoor or outdoor use • Powder-coated, perforated, metal grille protects speaker from damage or abuse • Complete with adjustable, metal mounting bracket for easy fixed or mobile use • Fitted with standard 3.5mm "mini-plug" on a 5.5', strain relieved cord • 5"w x 4.3"h x 3.2"d, 1.7 lbs..... **$19.99**

OAK ON AIR or **BLACK ON AIR** **Illuminated Station Sign** When actuated, the nearly 2" letters shine via six, noise free, replaceable, incandescent lamps. When not actuated, the letters are nearly invisible. Internal printed wiring board contains electronic "Smart Sense" circuit to remotely trigger the lamps on transmit by shorting or applying 10-14V to the circuit. Solid oak cabinet • Available in natural oak or black finish • Works with any radio • 13.8 VDC operation • AC wall cube power supply • RCA cord and diode adapter • Recessed rear connectors for flush wall mount ..... ea. **$69.99**

The BetterRF Company

I-MATE **Accessory for ICOM PRO Series** Provides external selection of pre-recorded voice and keyed messages for the 756PROII and keyed CW messages for the 746PRO. Eliminates shifting the display from operating mode to memory select mode to transmit prerecorded messages. Four buttons transmit associated message. Provides pulsed sine-wave oscillator for safe tuner and amplifier tuning. Has alternate audio input for second mic. Plugs into transceiver mic jack. Receives power from the available voltage..... **$74.99**

706 TUNE CONT **Tune up Control for IC-706/718** Plugs into Molex connector on rear of radio. Converts radio's TUNER/CALL button function to TUNE MODE which limits radio 8-10W RF output and produces a sidetone through the speaker. When finished, it reverts back to previous mode and power. No need to switch to AM or RTTY or hold down the PTT switch. Works 160-6M, except not 6M with original IC-706..... **$32.99**

NCS-3230 **Multi-RX Receive Console** The ultimate in RX audio control from up to 6 receivers! Connect radios, then choose which to monitor, where the audio will appear in the audio field (two modes), and record any or all audio utilizing manual or VOX activation. External recorder required. LEDs indicate which radio(s) are selected. • Built-in stereo amp • Front panel volume and balance controls • "Mute All" button • Use headphones/set or speakers or both • LEDs identify active radios • 12 VDC required • 8.5"w x 3.3"h x 6.6"d..... **$349.99**

NCS-1514 **Wall Power Supply** Designed for use with the 3230 above..... **$24.99**

NCS-P2PH35-A **Cable Kit** 6 cables, 6' long, for connecting receivers, transceivers or scanners to the 3230. RCA phono connector (to 3230) on one end and 3.5mm phone plug on the other..... **$42.99**

NCS-MRX2MS-A **Cable Interface Kit** For interfacing the 3230 to the 3240. Feeds selected audio from the 3230 to speakers or headphones/set connected to the 3240. Selective muting **$49.99**

NCS-3240 **The Multi-Switcher** A "mini-console" that switches all equipment (mic, headset, keyer, foot-switch, etc) to any of four radios using LED-lighted push buttons. Switch between headset, desk/hand mic, TNC, phone patch, sound card, etc. Matches impedance, audio level and pin-out of nearly any mic to virtually any radio. Switches foot/hand-switch and CW keyer to selected radio. Switches radios receive to external speaker or headphones. Requires 12VDC. 8.5"w x 3.3" x 6.2"d..... **$299.99**

NCS-1512 **Wall Power Supply** For the 3240. 12 VDC output @ 300mA..... **$12.99**

NCS-LOZNC **Unterminated Cable** Requires mic connector installation. Other end is an 8-pin DIN male connector to interface with 3240..... **$17.99**

NCS-3400 **Multi-Patch Passive Audio Panel** Organizes audio and other signal distribution in a shack. Makes it easy to add or reconfigure equipment. Consists of 5 rows by 10 columns of 3 types of connectors. Each row has 6 RCA phono jacks, 2 3.5mm phone jacks, and 2 standard phone jacks. 6 modular jacks for telephones and phone accessories. Slide switch disconnects 3.5mm and 6.4mm jacks from the 6 RCA jacks allowing each row segment to operate independently. 11.75"w x 4.75"h x 2"d (including mounting flanges)..... **$129.99**

See NCS in the Price Guide for Radio Interface Cables for Icom, Kenwood & Yaesu radios.

WAHL® ELECTRONICS ISOTIP

7740 **Cordless Soldering Iron** Provides tip performance up to 50 watts and over 700°. Contains premium NiCad rechargeable battery for high-rate charging; a partially discharged unit will return to full capacity within 1 to 2 hours, with a complete recharge in 3 to 4.5 hours. Replaceable battery and worklight. Comes with recharging stand, fine and heavy tips **$47.99**

7971 **SolderPro 50** Usable as a soldering iron, torch, hot knife and heat tool using optional interchangeable tips • Heats up from to 410°F to 750°F within 10 seconds • Runs up to 30 minutes • No electrical current • Easy refill, powered by standard cigarette lighter butane (not included)..... **$19.99**

7974 **SolderPro 70** Usable as a portable soldering iron, torch, hot knife and heat tool using optional interchangeable tips • Heats up from 410°F to 850°F within 10 seconds • Runs up to 120 minutes • No electrical current • Easy refill, powered by standard lighter butane (not included) **$27.99**

82-5000-0004 **Rosin Core Solder** • 60% tin, 40% lead • 040" diameter • 374° F melting temperature • Non-corrosive • For all electrical applications • 0.5oz. in handy dispensing tube..... **$1.99**

ICC NITELOGGER II **Automatic Tape Recorder Activator** Takes audio output from a radio or scanner and provides an impedance match and voice activated relay operation for a tape recorder. When audio is present, the relay circuit, with adjustable drop out delay, automatically activates the recorder for the duration of the signal, then releases. Simple connection with supplied cables to radio's external jack, and tape recorder remote and mic inputs. AC adapter supplied. 4.37"w x 3.25"h x 2"d.... **$69.99**

Weller®

SOLDER EQUIPMENT

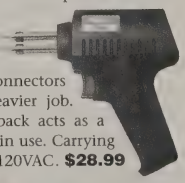
SP-23LK **25W Soldering Iron Kit** *(middle right)* Ideal for hobbies, kits, radios and delicate electronic work. "On" Indicator light. Supplied with three 750° tips, handy soldering tool and solder. Size: 8-1/4 in. long, 1-3/4 oz., Two-wire 6 ft. cord **$17.99**

W-60P **60W Pencil-Type Soldering Iron** *(left)* For most circuit work. Supplied with 0.0625" 700°F screwdriver tip. 7.5", 2.5 oz., 6' cord, 120V **$64.99**

WP-25 **25W Pencil-Type Soldering Iron** For work on delicate electronics. 750°F tip temperature. 7.875" long, 1.75 oz., 4' cord, 120V AC.... **$34.99**

WSTA3 **Pyropen® Butane Soldering Iron** *(right w/case)* Light-weight and completely portable. Operates up to three hours on a charge of regular cigarette lighter butane (not included). Soldering temperature control is adjustable from 392° to 932°F, with a very fast heat-up time. It's ready to solder in just 30-seconds! Supplied with tips for soldering, hot air (1202°F), and brazing..... **$99.99**

WST2 **Pyropen® Jr.** *(middle left)* Portable, mini, butane-powered soldering iron. Recharges in seconds from a cigarette lighter butane (not included). Soldering temperature is adjustable from 392° to 842°F. Also, hot blow feature (806°F) and torch feature (2372°F). Has handy pocket clip..... **$89.99**



7200PK **Multi-purpose Soldering Gun** Compact, lightweight, 75W for bigger work, connectors and almost any other heavier job. The flat, self-supporting back acts as a convenient rest when not in use. Carrying case, extra tip and solder. 120VAC. **$28.99**

WTCPT **42W Temperature-Controlled Soldering Station** *(left)* Ferro-magnetic sensor in tip controls temperature (700°F), no adjustments. Closed loop method protects components. ESD safe. Power unit, soldering iron and stand with sponge. 3-wire 4' cord. 4.5" x 5.94" x 3.63", 3.9 lbs..... **$119.99**

WESD51 **50W Adjustable Soldering Station** Quick heat-up, rapid temperature recovery. Microprocessor-controlled, digital LED display shows setting and tip temperature (350°F to 850°F). Auto power off after 90 minutes of inactivity. ESD safe. Power unit, soldering iron with stand and sponge. 3-wire 4' cord. 5.9" x 4.5" x 3.6", 3.93 lbs **$149.99**

WEST MOUNTAIN RADIO

RIGrunnner

The most convenient and safest way to connect to a 12VDC source and distribute it to all equipment. A power panel that uses the excellent Anderson PowerPole® connectors. Perfect for shack or mobile. Eliminate those wall warts! • All models are conservatively rated at 40 amps total with any outlet good to 40 amps • Anderson PowerPole® crimp or solder connectors provide a safe secure, hot connect, polarized, color keyed, genderless connector system • Conforms to ARES/RACES, RSGB, ARRL recommendation for high current 12VDC connectors • No messy binding posts, frayed wire connections, black tape or short circuits • Each outlet is individually fused with automotive ATC/ATO fuses • Blown fuse LED shows status • Shipped with appropriate fuses installed.

RR/4010S/C 10 Outlets One "always on" outlet and nine auto or manually-controlled switched outlets. An FET on/off system controls entire station with the power button on your rig. Quick status precision LED and audio voltage monitor. 12 pair crimp solder connectors..... **$119.99**

RR/4012/C Intelligent DC Power Panel Neatly distributes 12V, up to 40A, from power supply or battery to transceivers and accessories. Perfect for home and mobile applications. 12V input connection fused at 40A and 12 pair of outlets supplied with assortment of standard automotive fuses. LED "open" indicators on every fuse. LED voltage monitor indicates normal voltage, LEDs and audio alert for over/undervoltage conditions. 6' DC cable and 12 pair *Anderson Powerpole* crimp-solder connectors. 11.8"w x 2.7"h x 1"d..... **$112.99**

RR/4008/C 8 Outlets Quick status precision LED and audio alert voltage monitor. For small or mobile installations or as expansion unit. 12 pair crimp solder connectors. 5.75"w x 2.7"h x 1"d..... **$92.99**

RR/4005/C 5 Outlets DC power panel, for small/mobile installs or as expansion unit. 6 pair crimp solder connectors. 5.75"w x 2.7"h x 1"d **$59.99**

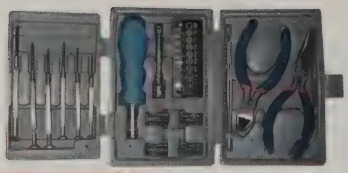
CR/TOOL Crimper/Wire Cutter Handy for installing *RIGrunner* connectors. Hardened steel, 8" for high leverage, comfortable plastic grip... **$9.99**

C30/PK/12 12 pair, 30A connectors..... **$10.99**

Look For This

NEW

& Check Out AES' Latest Additions.



VELLEMAN

VTTS Multi-Purpose Toolset A quality toolset for the electronic engineer and hobbyist • 4.75" universal handle, 3" extension, 9 different bits, hex adapter, and (4) 1/4" drive sockets • Bits: (Slotted) 1/8, 3/16, 1/4"; (Phillips) #1, #2, #3; (Star) T-15, T-20, T-25 • 4, 5, 6 and 8mm 1/4" drive sockets • 6 precision screwdrivers (4 slotted, 2 Phillips) • 4.5" mini diagonal plier • 5" mini long nose plier • Tweezers • Plastic carry box, 6" x 4" x 2"... **$9.99**

VT-SET21N 8-in-1 Screwdriver Set Includes 4 Phillips and 4 slotted screwdrivers. Each screwdriver fits into the handle for greater torque..... **$4.99**

VT-SET3N 6-Piece Electronics Screwdriver Set Includes T6, T7, T8, T10, T15 x 50mm sizes. Each screwdriver has its own handle and measures 4.2 inches in length..... **$7.99**

VT-LAMP2U Magnifier Lamp A 22-Watt, circular daylight fluorescent lamp with 1.75x magnifying glass, 41 inch arm length and convenient table edge mounting clamp..... **$49.99**

72887 SUPERADIO III™ High Performance, Long Range AM/FM Portable Radio • Tuned RF stages on both AM and FM • 8" FM swivel whip antenna • 7.875" AM ferrite rod antenna • Ceramic IF filter, plus 3 IF tuned circuits on FM • 4 IF tuned circuits on AM • Selectable normal or wide AM • Switchable AFC • Precision vernier tuning • 6.5" woofer, plus 2" tweeter • Separate bass and treble controls • Volume plus loudness circuitry to boost bass response at low volumes • Headphone jack • AM/FM external antenna terminals • Operates on AC power or 6 D-cells • Fold down carry handle • Metal speaker grille • 12.75"w x 9"h x 3.25"d, 5 lbs **$49.99**

Q-VIEW QSL CARD HOLDERS

Proudly display your favorite QSL cards in these 12" x 40" clear plastic hanging holders. Each holds 20 3.5" x 5.5" cards. Open at center to receive cards easily. Pack of three (displays 60 cards) **$18.99**

ICOM

D-Star System Explore the benefits of wireless High-Speed integrated Digital connections! D-Star is an off-the-shelf, 128K open protocol data system combining analog and digital into a seamless communications network at 1.2 and 10GHz. The power of the system is limited only by one's imagination. For example, while in a vehicle, visually communicate what is happening simply by e-mailing a photo or live video. Icom is the first to introduce products for this innovative communication system. There are repeater and backbone components, and the ID-1 transceiver can be configured as a mobile or base station. • Open protocol TCP/IP structure • Digital voice and data capability • Data 128K (130kHz bandwidth) • ATM multiplex (on the backbone) • Multi-site capability with high speed microwave backbone 10Mbps • Internet interface capability • Repeaters handle both digital and analog voice

ID-1 10W 1.2GHz FM Digital Transceiver with Control Head A vital part of the D-Star system. Don't wait for a new repeater to be set up in your area. This rugged little rig operates with current analog 1.2GHz repeaters, plus simplex digital operation with another ID-1. Its operating frequency range is 1240-1300MHz with FM and GMSK (digital) modulation formats. Includes alphanumeric memories, CTCSS encode/decode and scanning, Full PC control via USB port and supports 10 BASE-T ethernet for 128K data operation **$1349.99**

YAESU

FTV-1000 **200W 50MHz Transverter for the FT-1000MP MK V** Utilizes the same high-performance power MOS FET transistors as the MK V. PA stage operates at 30VDC, provided by the MK V power supply. Output devices, capable of 300W PEP, are run well below their maximum ratings for high reliability. The thermostatically-controlled cross-flow cooling fan keeps operation cool. Exclusive Class-A bias capability is now extended to the FTV-1000 50MHz operation providing the cleanest SSB signal on the band! It also features a high dynamic range receiver front end, utilizing a high-intercept design with JFETs in a double balanced mixer. Driving the mixer is a low-noise-figure MOS FET preamp, two gain selections available. For local, select IPO, bypassing preamp for direct feed to the mixer. 12dB attenuator available when working with extremely strong local signals. Rocker switches control all functions, with LED indicators..... **$899.99**

HRI-100 **Amateur Radio Internet Linking Kit** Uses DTMF signalling to connect HTs or Mobile transceivers to the Internet, greatly expanding the coverage area. A repeater-based system, ideal for emergency communications, "sister-city" link-ups, or accessing repeaters world-wide. Includes CD (including manual), power cable, RS-232C/DB-9 data cable, 8-pin mini-DIN plug data cable, 2 sound card in/out cables and WIRES™II user/server agreement..... **$149.99**

More WIRES™II wide-coverage internet repeater enhancement system information can be found at www.vxstd.com/en/wiresinfo.en/

VXR-7000VA **50W 2M FM Desktop Repeater** A long list of built in features, sets the standard for mid-power, continuous duty base station and repeater applications. Whether used as a base station, with its attractive housing and user-friendly controls, or as remote repeater in the most demanding environments, the VXR-7000VA will provide years of reliable service. • 136-150MHz • 16 channel synthesized • 10-50W output, adjustable (100% duty) • 12.5/25kHz bandwidth • Programmable 16 tones/codes • ANI/ENI I.D. display* • CW transmitter I.D.* • Time-out, hang and guard* timers • BCLO, BTLO • Selectable repeater or base transceiver mode • Selectable local or remote mode • 115/230 VAC, automatic DC supply back-up • 4.5"h x 12.8"w x 15.4"d, 22 lbs..... **$1269.99**

** Dealer programmed feature*

GROTHE

SIRENS & HORNS

VS-2 **Emergency Vehicle Siren** Designed for the volunteer fireman, a quality-built wail-yelp alarm that delivers big sound performance (120dBa sound level at 4 ft.). Frequency range is 600 to 1200Hz. It is pre-wired with a 3-position switch (Yelp-Off-Wail). High efficiency waterproof horn speaker. Also includes 10 ft. cable, mounting bracket and hardware. 12VDC @ 1.5A, 2.7 lbs..... **$89.99**

VS-2LS **Siren–Light Combo** A one-unit siren and yelp alarm, revolving halogen light and window mount. Fits all cars, slides on top of car window and plugs into cigarette lighter. The power plug contains an "on" LED and three position switch to select Yelp, Off or Wail modes. 12 VDC @ 5A. Specify AMBER, BLUE or RED light..... ea. **$299.99**

VS-3 **Vehicle P/A and Airhorn w/Rebroadcast** A big, powerful airhorn sound with 4 different sounds (no siren) calls attention to your vehicle. Delivers 120dBa level at 4 ft. Locking down the microphone with the supplied rubber band, you can monitor sound from a mobile rig, scanner, etc. via the speaker outside. Includes horn speaker, microphone, electronic center, 10 ft. cable, mounting bracket and hardware. 12 VDC @ 1.5A..... **$129.99**

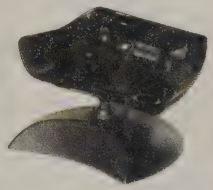
VS-4 **P/A Emergency Vehicle Siren** Contains P/A, rebroadcast, wail, yelp, pulse and airhorn. P/A override features, plus volume control of all siren modes. Restricts output when operating in people places. Includes horn speaker, microphone, electronic center (3 x 3.5 x 2 in.), 10 ft. cable, mounting bracket and hardware. 12V DC @ 1.5A.... **$139.99**

13810 **Sticky Pad®** No more slipping or sliding! The Sticky Pad holds objects in place on your vehicle dash. There are no adhesives to get messy or magnets to ruin electronic equipment. The back of the pad allows it to stay anywhere you place it while also being movable. The Sticky Pad is washable and reusable. 7.25" x 4.13" x 0.19"..... **$5.99**

KENWOOD

SIRIUS
Satellite Radio

KTC-H2A1 **100 Streams Of Satellite Radio** Every minute of every day, SIRIUS beams programming to three state-of-the-art satellites moving high above the earth in figure eight, geo-synchronous orbits. The programming is then broadcast back down to every inch of the continental U.S. to your radio wherever you go with no signal fades. • 60 streams 100% commercial-free music • 40 streams of sports, news, and entertainment from CNBC, ESPN, NPR, Radio Disney, E! Entertainment, Discovery Channel and more • Over a half million songs streamed into your sound system every month (pop, rock, country, hip-hop, R&B, dance, jazz/standards, classical) • Live, in-studio performances and interviews • Stream jockey musicians, genre experts, and music fanatics who are knowledgeable about the musicians and songs they play • Plug & Play - for car or home with optional docking stations • Subscription required • 5"w x 3.5"h x 4.5"d, 14 oz..... **$99.99**



KPA-H2H **Home Docking Kit** Home antenna, power supply, remote control, RCA cable.. **$49.99**

KPA-H2C **Docking Kit for Car** Magnet mount antenna, cigarette and cassette adapters..... **$29.99**

1-888-539-SIRUS or www.sirius.com for more info.

TIMEWAVE
TECHNOLOGY INC.

HSC-99 **HamHub™ Station Controller** Integrated interface to connect and control mic, headset, footswitch, TNC, rotor, transceiver and computer. • Provides isolation of critical audio circuits and opto-isolation of RS-232 and control in/outputs • Both sound card and TNC in/outputs are transformer isolated to eliminate ground-loops • Uses single USB connection (computer) and provides 3 opto-isolated RS-232 serial COM ports for TNC, rotor and rig control (serial output configureable to match some older TTL rigs) • Full-time audio multi-level indicators on both in/output circuits match audio levels between equipment • Internal high-speed micro-controller implements and supervises functions making them transparent to the user • Soft/hardware controls interlock - choose which overrides the other • Operates with most soundcard and software control programs..... **$349.99**

UHF CONNECTORS

General purpose and, with the use of optional reducing adapters, accommodate a wide range of applications. Rated for up to 300 MHz. Impedance is non-constant and voltage rating is 500V peak.

AMPHENOL
83-1SP-1050 (PL-259) Male coax plug
83-1SP (PL-259) Silver-plated coax plug

VAN GORDEN
SILVER PLATED (PL-259) Teflon

AMPHENOL
83-878 UHF single hole bulk-head receptacle

AMPHENOL
83-1R (SO-239) UHF panel receptacle
83-1H (UG-106) Hood for 83-1R for inline use

AMPHENOL PL-259 REDUCING ADAPTERS
83-185-RFX For RG-58
83-168-RFX For RG-59/8X

TYPE N CONNECTORS

Constant 50Ω impedance, excellent performance up to 11 GHz and 1,500V peak. Internal gaskets provide better weather resistance than the standard UHF type.

AMPHENOL
82-61 Male for RG-8
82-202-1006 Male for 8214/9913/9913F
34025 Male for RG-58

VAN GORDEN
N CONNECTOR Male EZ-install type for 9913/8214

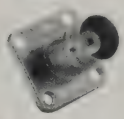
AMPHENOL
82-209 Female in-line for RG-8

AMPHENOL
82-24 Type-N panel receptacle
AIM
26-8011 Type-N chassis mount

BNC CONNECTORS

Miniature, lightweight connectors for RG-58/59 type coax. Quick disconnect bayonet coupling, small size and low cost. Rated for up to 4 GHz. Impedance is 50Ω nominal. Voltage rating is 500V peak.

AMPHENOL
31-002 Male for RG-58
31-012 Male for RG-59/8X



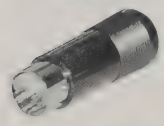
AIM
27-8450 4-screw chassis mount, screws not included

AIM
27-8470 Dual chassis mount

AIM
27-8460 3/8" hole chassis mount
AMPHENOL
31-221 Female chassis socket

MICROPHONE AND DIN CONNECTORS

VANCO
CBC-8P Panel mount 8-pin male



KENWOOD
7-PIN DIN plug
8-PIN DIN plug
13-PIN DIN plug

PHILMORE
61-6088 8-pin female mic plug

VANCO
CBC-4 4-pin female mic plug
CBC-5 5-pin female mic plug
CBC-6 6-pin female mic plug

HOUSE OF DEALS
AP-115 1/4" metal stereo plug

HOUSE OF DEALS
AP-135 3.5mm stereo mini phone

DALBANI
15-0293 3.5mm mono plug

Prices for all items on this page can be found under CONNECTORS in the Price Guide.

COAXIAL ADAPTERS

AMPHENOL
83-1T UHF T-connector adapter (M-358)

AIM
27-8140 BNC T (2 fem., 1 male)

AMPHENOL
83-877 UHF double male adapter

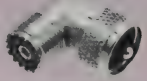
AMPHENOL
4400 SO-239 to Type-N male
AIM
26-8015 Type-N male to SO-239

AMPHENOL
31-28 BNC female to PL-259
AIM
27-8120 BNC female to PL-259

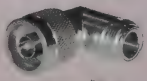
HOUSE OF DEALS
SMA-872 SO-239 to SMA adapter

AIM
27-8130 BNC double male
AMPHENOL
2900 SO-239 to BNC male adapter

AIM
25-7420 BNC male to SO-239
26-8017 BNC male to N female



AMPHENOL
83-1AP UHF right angle (UG-146)



AMPHENOL
82-64 Type-N right angle adapter

AIM
26-8016 BNC female to N male

AIM
25-7365 BNC female to SO-239

AIM
29-4140 SO-239 to mini PL-259

AMPHENOL
83-1J UHF double female (PL-258)

AIM
29-3855 BNC female to SMA male

AIM
25-7351 Chassis mt SO-239 double female

AIM
26-8010 Type-N double female

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GARY L. KA9YTB

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PAUL W9KHO

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BRUCE KE8TI

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PHILLIP KB8GA

ROD WN8R

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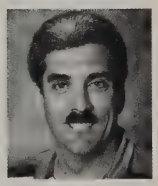
CHUCK K3CEC

JIM WD6FYX

LUKE KK7XX
Store Manager

SQUEAK AD7K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CARLOS KB2UJP

CHARITY KF4RQY
Store Manager

ERNIE K1HO

GRANT K4IQW
Asst. Manager

GEORGE K2WO

KIM

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Name _____ Call _____
Address _____
City/State _____ Zip _____
E-Mail Address: _____ Fax: _____
Phone No. (Home) ( ) _____ Hours: _____
Phone No. (Work) ( ) _____ Hours: _____

SHIP TO *(If other than at left):*

IF YOU HAVE MOVED since your last order, please show your old address:

QTY.	MANUFACTURER	PART OR MODEL # • DESCRIPTION	PRICE EACH	TOTAL
			TOTAL AMOUNT OF ORDER	$

LINE 1 — TRADE-IN Allowance (if any) *Enclose mail quotation or reference telephone quote & list Trade-in items on line provided below.*

IMPORTANT! Persons having a Trade-in must check one of the following: (Also, see more important information on previous page and on Policies page.)
- ❑ Hold this order until you receive and approve my trade-in.
- ❑ Payment in-full enclosed. Refund allowance when my trade-in is received and approved.
- ❑ Charge the FULL AMOUNT of my order to my Charge Card and Credit my trade-in allowance when my trade-in is received and approved.

-

LINE 2 — Shipping Charges We ship via **best ground method** at *flat-rate* shown on next page, except to APO/FPO made via Priority Mail.
For Faster Service select one of the following: (These methods are not flat-rated so allow for increased shipping charges - no flat-rate credit.)
❒ UPS Next Day Air (Red) ❒ 2nd Day Air (Blue) ❒ 3-Day Select (Orange) ❒ Fed Ex ❒ Fed Ex Home ❒ Express Mail ❒ Priority Mail

+ *Shipping Charges are taxable in WI, FL, NV & OH*

LINE 3 — Sales Tax: ❑ WI- 5.6%, ❑ FL- 6.5%, ❑ NV- 7.5%, ❑ OH- 6.75% *For Ohio & Nevada figure tax before subtracting trade-in allowance* +

LINE 4 — Credits: AES Refund Checks, Gift Certificates or Manufacturer's Coupons (if any) -

CREDIT CARD INFORMATION

We accept I.M.P.A.C.® Government Credit Cards

Account Number

Cardholder's Name CARD EXPIRES

Cardholder's Signature Date

LINE 5 — Balance $

LINE 6 — Due AES from previous order (if any) +

TOTAL AMOUNT DUE

Choose payment method from below: (Fill in information at right, if applicable)
❒ Bank transfer ❒ Certified check ❒ Personal check ❒ Money order
DO NOT MAIL CURRENCY. Send bank check or money order. Personal check may delay shipping until it clears our bank. Attach remittance to top of order blank.
❒ Credit card (VISA, MasterCard, Discover, American Express, IMPAC)
❒ COD $7.50 fee per package. *Money Order or Certified Check Only. MINIMUM $20.00 COD ORDER – NO AIR OR PARCEL POST COD's*

$

AMOUNT ENCLOSED -

BALANCE DUE (IF ANY) $

BANK TRANSFER INFORMATION

M&I Marshall & Ilsley Bank, Milwaukee, WI. ABA #075000051. Credit to account #00244-15017 in the name of Amateur Electronic Supply. Make sure to include the name under which the order was submitted.

Cut along dotted line or make Photocopy

COD ORDERS Minimum COD order is $20.00, shipment via UPS Ground only (no air or parcel post). The flat-rate, plus a $7.50 COD fee per package applies. Payment by money order or certified check, only.

DAMAGED ITEMS If you discover a damaged shipment, **THE CARRIER SHOULD BE NOTIFIED IMMEDIATELY**. The merchandise should not be returned to us until notified to do so by the carrier. All packaging materials must be retained including styrofoam peanuts, inner and outer cartons, labeling, etc. for inspection by the carrier or the claim may be denied. With shipments properly packaged (as all our shipments are), the ultimate responsibility for delivery in good condition rests with the carrier.

DEFECTIVE ITEMS Defective items should be returned to AES or the manufacturer for warranty repair or replacement, at our discretion. After processing, we will return it via ground method, at our expense in the 48 contiguous states. If you receive defective equipment, call our Customer Service Department at 414-358-4087 for instructions. Canadians please see *"Canadians Note:"* under TRADE-INS.

INTERNET ORDERS The customer may order products directly on our web site via our internet order form. If the customer does not have access to the web, but has an e-mail account, the customer may e-mail his/her order making sure the following information is included: full name, call sign (not required to order), phone number, billing address, shipping address, item(s) to be purchased (model number and manufacturer) and method of payment. If paying by credit card, we need the card number and expiration date.

PAYMENT Accepted forms of payment are electronic bank transfer, certified check, personal check, money order, credit card (VISA, MasterCard, Discover, American Express, IMPAC), or COD. The customer's choices of payment methods may depend on amount of purchase or destination of shipment.

PRICING We will pass on decreases in pricing to our customers whenever possible. Due to foreign currency fluctuations, promotions, manufacturers' specials, etc.; prices may vary, so be sure to confirm prices when ordering. All prices and specifications are subject to change without notice. **AMATEUR ELECTRONIC SUPPLY®** is not responsible for typographical errors or omissions.

REFUNDS Amounts under $5.00 are not refunded unless requested in writing to the Milwaukee headquarters within 12 months.

RETURNS In order to maintain the lowest possible prices, we do not offer a *free trial* or *evaluation period* on new equipment. If permitted, an **Authorized** return of merchandise for credit (it must be like new with all original packaging) will be subject to a **Minimum 15% Restocking Fee**. The item must be returned within **10 days** after receipt, prepaid, with a copy of the purchase invoice and a letter describing the reason for the return. No returns on antennas, towers, cable, items drop-shipped from the manufacturer, audio or video tapes, kits, books, or computer software. Canadians please see *"Canadians Note:"* under TRADE-INS.

PACKING FOR SERVICE AND/OR RETURN When returning heavy, delicate, and expensive equipment, it must be carefully packed in order to avoid damage caused by normal transportation dynamics. When contents of packages are damaged, claims will be paid only if the carton and packing meet standards set in the International Safe Transit Association Procedure 1 and 1-A. These standards simply state that cartons and packing should provide reasonable protection to their contents. Ideally, contents should be suspended in the center of the carton by the packing material, no less than three inches on all sides for heavy items. For items heavier than 20 lbs., 3" of foam or crumpled paper should be used instead of polystyrene edge protectors.

When you send your well-packed parcel to AES, be sure to include a letter inside the package stating your call, name, address, e-mail address, phone and reason for return. Do not rely on information written or taped on the outside of the carton.

SHIPPING Shipping charges, which include adequate insurance, are based on the Order Total at the time of the initial shipment (COD fees not included). The order amount on which charges are determined is pre-coupon and pre-tax (see chart on this page for rates). Cancellations on partially shipped orders will not affect the shipping charges. All back-orders from partially shipped orders are shipped PREPAID at the expense of AES® via Ground Service, only.

Shipping calculations on Ground method to the contiguous 48 states have been simplified by utilizing flat-rate categories (see chart on this page for rates). Other expidited methods and any USPS methods are charged at regular rates without any credit for ground rates. CODs are not accepted for these faster methods.

Shipments to APO/FPO are via Priority Mail. Orders exceeding ground method weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

To insure orders arrive quickly, AES stocks items at all four locations. Occassionally, an item will be temporarily unavailable at certain branches, due to various reasons. In this case, AES will ship the order from a location that has the needed item.

FLAT RATE SHIPPING via Ground in the contiguous 48 States

AMOUNT OF ORDER	SHIPPING CHARGES
Up to $100.00	$4.99
$100.01 to $500.00	$9.99
$500.01 to $1,499.99	$14.99
$1500.00 & UP	PREPAID

Flat Rate Does Not Apply To Drop Shipments

Flat Rate Advantage – No Penalty for Number of Cartons or Weight!

TRADE-INS Amateur Electronic Supply® accepts trade-ins on new equipment purchases, the worth of which is determined by the electrical and physical condition of the item. Estimates are given assuming the trade-in is in good electrical and physical condition. If it is not, a deduction will be made.

To facilitate a trade-in, the customer can choose one of the following: (A) Purchase the new item(s), send in the trade for evaluation, and have the trade-in amount refunded or credited. (B) Send in the trade and have the order held until the trade-in amount is determined.

When shipping trade-ins for evaluation, use a sturdy carton (double boxing is recommended) and plenty of packing material. Ship PREPAID & FULLY INSURED. Do not use Bus or Parcel Post. Collect shipments will not be accepted.

AES® assumes no responsibility for damage in transit or for filing of damage claims. Canadians, inquire locally about taxes and/or customs charges before releasing your shipment.

Canadians Note: Returned equipment not originally manufactured in the U.S. will be subject to valuation and custom charges, plus broker's fees. Check customs before shipping anything to us, including new equipment for warranty repair. We will not accept any shipments from outside of the U.S. unless all fees are paid in advance.

BIDS & PURCHASE ORDERS AES® accepts written and signed Purchase Orders from well rated D&B companies, military, schools, colleges, universities and federal, state, county and city Government agencies.

We welcome the chance to bid on your requirements and search the Internet daily for requests from all Government agencies. We are registered with FACNET and accept Government I.M.P.A.C.® charge cards. Net terms available to Government agencies, schools, and companies highly rated in Dunn & Bradstreet.

For more information, please contact Paul Szczerbinski, W9KHO (pauls@aesham.com) at AES® Milwaukee. Toll Free: 1-800-558-0411, Local: 414-358-0333 or Fax: 414-358-3337

We Invite You to Visit the Nearest AES® Location

All Store Hours: Mon–Fri • 9am to 5:30pm, Saturday • 9am to 3pm

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621 Commonwealth Ave. • 407-894-3238 • 1-800-327-1917

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Newington, CT 06111
860-594-0200 fax: 860-594-0303
hq@arrl.org

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662-323-8211 fax: 662-323-6551

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Torrance, CA 90501
310-787-8615 fax: 310-787-8619

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949-458-7277 fax: 949-458-0826
www.astroncorp.com

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630-238-1183 fax: 630-238-1186
bencher@bencher.com

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805-642-7184 fax: 805-642-7271
sales@connectsystems.com

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Manchester, NH 03108
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techsup@cushcraft.com

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Hayward, CA 94545
510-732-9229 fax: 510-732-9188
sales@davisnet.com

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dci@dci.ca

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diamondantenna@rfparts.com

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info@glenmartin.com

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info@heilsound.com

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fax: Cust/Service 909-394-7050

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MFJ ENTERPRISES
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Starkville, MS 39759
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www.mfjenterprises.com

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921 Hwy 25 S
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662-323-8287 fax: 662-323-6551

NCG CO. (COMET, DAIWA, MALDOL)
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